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**International Distribution Management of Firms
from Emerging Markets
— Case Study Research of Chinese Firms**

by

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Abstract

In the last two decades, outward foreign direct investment from developing and transition economies has been growing rapidly, and new multinational enterprises from these economies have started to compete on the world stage. However, these firms are facing formidable challenges due to their special characteristics and weaknesses. Today firms compete not only in terms of products but also in terms of supply chains, and the lack of comprehensive distribution networks is one of the main problems in the internationalization of these new multinational enterprises.

This thesis presents a study which finds answers to the question “how can new multinational enterprises set up efficient international distribution logistics systems when they enter developed markets”. The domain of this study touches the existing research gap in management research on emerging economies. The study examines Chinese firms entering developed markets and provides an overall view of the development and characteristics of Chinese firms’ internationalization and first-hand information about their international distribution management. The study uses resource-based view and market-based view as explanatory theories and develops a model of efficient international distribution logistics systems for new multinational enterprises entering developed markets with foreign direct investment activities. The model suggests important resources for increasing the efficiency of international distribution logistics systems. Based on the result of the study, a number of managerial recommendations are provided both for Chinese firms who have entered developed markets or are planning their internationalization to such a market, and for logistics service providers who are planning to cooperate with such firms.

Zusammenfassung

In den letzten zwei Jahrzehnten haben Direktinvestitionen aus Entwicklungs- und Schwellenländern stark zugenommen und neue multinationale Unternehmen aus diesen Ländern engagieren sich zunehmend im internationalen Wettbewerbsumfeld. Aufgrund ihrer besonderen Charakteristiken und Fähigkeiten müssen sich diese Unternehmen jedoch erheblichen, sehr spezifischen Herausforderungen stellen. Vor allem, da der heutige Wettbewerb zwischen Unternehmen nicht mehr nur ein Wettbewerb zwischen Produkten, sondern vielmehr ein Wettbewerb zwischen Supply Chains bzw. gesamten Wertschöpfungsketten ist. Dabei zeigt sich, dass insbesondere das Fehlen von umfassenden Distributionsnetzwerken eine der Haupthindernisse im Internationalisierungsprozess dieser neuen multinationalen Unternehmen darstellt.

Die vorliegende Arbeit widmet sich der Frage, wie neue multinationale Unternehmen bei ihrem Markteintritt in Industrieländern effiziente und international wettbewerbsfähige Distributionslogistiksysteme aufbauen können. Hintergrund hierfür ist eine Forschungslücke, die sich im Bereich der Managementforschung über Direktinvestitionen von Unternehmen aus Schwellenländern aufzeigt. An diesem Punkt setzt diese Arbeit an und untersucht chinesische Unternehmen, die in den klassischen Industrieländern investieren. Dabei wird ein umfassender Blick auf die Entwicklungen und die besonderen Eigenschaften der Internationalisierung chinesischer Unternehmen gelegt, um im Rahmen der Untersuchung neue Erkenntnisse über ihr internationales Distributionsmanagement zu gewinnen. Basierend auf dem Resource-Based View und dem Market-Based View als Erklärungsmodellen wird ein Modell effizienter, internationaler Distributionslogistiksysteme für neue multinationale Unternehmen, die ihren Markteintritt in Industrieländern über Direktinvestitionen planen, entwickelt und vorgestellt. Das neue Modell gibt dabei Hinweise, welche Ressourcen zur Steigerung der Effizienz internationaler Distributionslogistiksysteme genutzt werden können und bietet Gestaltungsempfehlungen, sowohl für chinesische Unternehmen, die bereits in Industrieländern tätig sind oder dies in Kürze beabsichtigen, als auch für Logistikdienstleister, die eine Kooperation mit solchen Unternehmen vorbereiten.

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Part I

Introduction

Chapter 1

Motivation of the study and research questions

1.1 Motivation of the study

Economic globalization is irreversibly transforming the economic system that we have known for decades. The old economic triad consisting of the USA, Europe, and Japan is being challenged by new centers of economic power and activity such as China and India, leading towards a multi-polar economic system.¹ UNCTAD points out in “World Investment Report 2006” that outward foreign direct investment (FDI) from developing and transition economies² has been growing rapidly.³ The data show that the outward FDI flows from these countries were about US\$ 3 billion in 1980, US\$ 13 billion in 1990, and US\$ 351 billion in 2008, which accounts for about 18.9% of the world total outward flows.⁴ This increase in direct foreign investment is accompanied by the emergence of new multinational enterprises from developing economies competing on the world stage. In 1990, only 19 firms from emerging and transition economies were listed in the Fortune 500, but by 2005 this number had risen to 47.⁵ Different names have been given to these firms, such as “third world multinationals”,⁶ “newcomers”,⁷ and “new global challengers”.⁸ In this thesis, these firms are called “new multinational enterprises (MNEs)”.⁹ While some of these MNEs have succeeded by following a low-margin, export-oriented strategy, some of them have reached global leadership positions in many markets.¹⁰

China started to take part in this process after beginning to open up to the rest of the world 30

¹ See [Accenture \(2007\)](#), p. 5.

² “Transition economies” here refers to Central/Eastern Europe and the Commonwealth of Independent States.

³ See [UNCTAD \(2006\)](#), p. xviii.

⁴ See the data of [UNCTAD \(2009a\)](#).

⁵ See [UNCTAD \(2006\)](#), p. xxiv.

⁶ See [Wells \(1983\)](#).

⁷ See [Mathews \(2002\)](#).

⁸ See [BCG \(2009\)](#).

⁹ For a detailed introduction and definition of new MNEs, see Chapter [4.1 on page 17](#) and Chapter [4.2.1 on page 19](#).

¹⁰ See [BCG \(2009\)](#), p. 7.

years ago. The Go Out Policy was formalized in the Chinese political framework and pushed in the 10th Five-Year Plan.¹¹ Since then, the volume of FDI from China has increased dramatically¹² and the internationalization of Chinese firms has been discussed often in media in recent years.¹³ Some Chinese firms, such as Lenovo, Haier, Cosco, and Huawei (often referred to as “national champions”¹⁴) have already successfully entered the American and/or European markets.

On one hand, internationalization can present Chinese firms with opportunities such as access to raw materials, sales markets, new technologies, etc. On the other hand, they are facing formidable challenges due to their special characteristics and weaknesses, such as lack of know-how about foreign markets and foreign laws, financing difficulties, lack of qualified personnel, etc. Moreover, lack of comprehensive distribution networks is one of the main problems for the internationalization of Chinese firms.¹⁵ According to CHRISTOPHER, “real competition is not company against company but rather supply chain against supply chain”.¹⁶ Although establishing a comprehensive logistics network is probably not the primary motivation for a Chinese manufacturing firm to enter a developed market, it is certainly an important resource for the firm to develop in this market. In order to become a “global challenger”, a Chinese firm must not only have competitive products but also offer a competitive service. Logistics can become the competitive advantage of a firm, because it is a source of profitability, supports the growth of a firm, and creates internal and external balance.¹⁷ A few available surveys about logistics in the internationalization of Chinese firms show that these firms consider logistics to be very important for the market development in their international expansion.¹⁸ Discussions with Chinese firms such as Huawei and Suntech have showed that they have to cope with challenges such as extremely short lead time, high delivery flexibility, different regulations, etc. Discussions with logistics service providers (LSPs) in Germany such as Rhenus and Fraport have revealed that the LSPs have extreme difficulties in cooperating with Chinese firms, but they consider Chinese firms to be important potential customers in the near future. Despite the rapid development of emerging countries and new MNEs, there is insufficient research in the field of the internationalization about these new MNEs. The field of distribution management in their internationalization has rarely been touched.

1.2 Research gap

Research on general management is still mainly focused on mature markets in North America and Europe. The result of this focus on firms from developed countries is that many emerging

¹¹ 10th Five-Year Plan was approved in 2001 for the five years from 2001 to 2005.

¹² See MOFCOM *et al.* (2008), p. 3.

¹³ See for example Hein (2005).

¹⁴ Zeng & Williamson (2003), p. 95.

¹⁵ See Li (2007), pp. 218–221.

¹⁶ Christopher (2005), p. 18.

¹⁷ See Abrahamsson (2006), pp. 67–68.

¹⁸ See Straube *et al.* (2008), pp. 16–17.

markets such as Asia and Latin America have not received much attention.¹⁹ For example, BRUTON & LAU investigated 4844 articles in ten highly ranked management journals from 1996 to 2005 and found that merely 6.3% (306 articles) deal with Asian Management.²⁰ Similarly, research on internationalization of FDI is primarily focused on developed economies, flows between developed economies, and flows from developed to less developed economies.²¹ Research on internationalization processes is also overwhelmingly focused on firms from developed countries and there is much less research on internationalization of firms from developing countries.²² Given the rapid rise of new MNEs from China, India, and other emerging countries, it seems apparent that internationalization of these firms deserves more attention.

WRIGHT *et al.* classified four perspectives in the management research on emerging economies:²³

1. firms from developed countries entering emerging countries,
2. domestic firms competing within emerging countries,
3. firms from emerging countries entering other emerging countries,
4. firms from emerging countries entering developed markets.

So far, the theoretical and practical discussions about internationalization concerning emerging economies have mostly focused on the first perspective. The second perspective is of little interest in terms of internationalization and FDI. The research on the third perspective has intensified in recent years.²⁴ With the rise of Korean and Taiwanese firms, some researchers have also started investigating the phenomenon of new MNEs entering developed markets, which is the fourth perspective.²⁵ In general, there is still insufficient research on the last two cases and a growing body of research addressing the third and (especially) the fourth perspective is expected.²⁶

Most of the research on the internationalization of new MNEs is so far focused on motives for their internationalization,²⁷ choice of entry mode,²⁸ choice of location,²⁹ and export activities without outward FDI.³⁰ There have been very few studies examining the market development

¹⁹ See Bruton & Lau (2008), p. 636.

²⁰ See Bruton & Lau (2008), p. 640. The investigated ten journals are Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Journal of Applied Psychology, Journal of Business Venturing, Journal of Internal Business Studies, Journal of Management, Journal of Management Studies, Organization Science, Strategic Management Journal.

²¹ See Demirbag *et al.* (2010), p. 208.

²² See Liu *et al.* (2008), p. 489.

²³ See Wright *et al.* (2005), p. 1.

²⁴ See for example the studies of Amsden (2003); Aulakh (2007); del Sol & Kogan (2007); Luo & Tung (2007); Cuervo-Cazurra & Genc (2008).

²⁵ See for example van Hoesel (1999); Makino *et al.* (2002). KAUFMANN & KÖRTE touched on this topic by focusing on the reaction of domestic firms in developed countries to imports from low-cost countries into their home markets.

²⁶ See Wright *et al.* (2005), pp. 14–16; Filatotchev *et al.* (2007), p. 556.

²⁷ See for example Buckley *et al.* (2007); Luo & Tung (2007).

²⁸ See for example Demirbag *et al.* (2010).

²⁹ See for example Filatotchev *et al.* (2007).

³⁰ In the special issue edited by Wright *et al.* (2005), only one paper deals with the fourth perspective and with the focus on export activities. See Brouthers *et al.* (2005). For another example, see MESQUITA & LAZZARINI's survey about small and medium-sized enterprises (SMEs) from emerging markets accessing the global market through exporting.

after these firms have entered the foreign markets, for example the management of a global supply chain.

Distribution is a major function³¹ for the new MNEs who enter developed markets with a market-seeking motive.³² International logistics has been discussed in numerous publications,³³ but just as with the focus of the research about internationalization, research on the topic of international distribution also primarily focuses on firms from North America or Europe entering other developed or developing markets, and mostly on export-oriented businesses.³⁴

Based on the analysis of the ongoing trend of international expansion of new MNEs into developed markets and the challenges they are facing in entering a developed market, it can be seen that there is a research gap about distribution management of firms from emerging countries entering developed markets.

1.3 Research questions

In this thesis, the phenomenon of new MNEs entering developed markets will be studied with the focus on distribution management for their market development. Since distribution management only plays a role when a firm has sales activity in a foreign market and is responsible for the activity, this study only considers new MNEs with outward FDI with market-seeking as one of their motives for internationalization. The specific focus of the study are Chinese firms, which serve as examples of new MNEs. The domain of the study will be discussed in detail in Chapter 2.1 on page 7. The central research question of this study is:

How can new MNEs set up efficient international distribution logistics (IDL) systems when they enter developed markets?

The Market-Based View (MBV) of a firm will be used as the explanatory theory for analyzing the importance of international distribution management (IDM) for Chinese firms entering developed markets, and the Resource-Based View (RBV) will be used as the explanatory theory for analyzing strategies for having efficient IDL systems.³⁵ The central question can be divided into several sub-questions which are addressed in different parts of the thesis:

1. What are the market and resource situations of Chinese firms in their internationalization and what is their impact on distribution management of these firms when they invest in developed markets?

³¹ Distribution has only recently been considered a major function. See Rushton *et al.* (2006), p. 3.

³² Analysis of the four different motives of internationalization is introduced in Chapter 4.3.1 on page 29.

³³ See for example Piontek (1994); Rushton & Walker (2007); Schieck (2008).

³⁴ For example, Gabrielsson *et al.* (2002) studied big international computer manufacturers and their multi-channel strategies in international distribution; Morgan-Thomas & Bridgewater (2004) analyzed the success factors in Internet-based international export channels of British firms; Katsikea *et al.* (2005) surveyed British firms about international direct sales; Wu *et al.* (2007) studied the relationship between American manufacturers and their foreign sales partners.

³⁵ The detailed reasons for choosing these two theories as explanatory theories is given in Chapter 7.1 on page 88.

2. What do Chinese firms' international distribution processes look like?
3. Which market factors influence the importance of IDM?
4. Which resource factors, including internal and external resources, have a positive impact on the efficiency of IDL systems?
5. Which practical suggestions can be given for setting up efficient IDL systems or to improve the efficiency of existing IDL systems?

Sub-question 1 will be answered through literature research in Part [II](#). Sub-question 2 will be answered through exploration of practice in Part [III](#). Sub-questions 3 and 4 will be answered through theory-building and theory-testing research in Part [III](#) and Part [IV](#). Sub-question 5 will be answered based on the result of the theory-testing research in Part [IV](#). The design of the research process will be introduced in Chapter [2 on the next page](#).

Chapter 2

Research design

This chapter defines the goal of the study and develop the research process based on the presented research questions. A **study** is a research project with a formulated research objective and it is achieved through research activities.¹ In the first section, the object and the domain of the study will be defined. In the second section, the relevant scientific research methodology will be introduced. Based on these two sections, a research process for this study will be designed in the last section.

2.1 Research objective

LEE & LINGS explain the position of philosophy of science in a simplified model of research composed of theory and reality (see Figure 2.1). The philosophy of science asks questions about what the nature of the real world is, how we can relate theoretical ideas to the real world, and how we can transfer knowledge of the real world back into theory. According to STEINMANN, business studies should be practice-oriented science with the intent of providing suggestions for solving problems which happen in reality.² Since the topic of this study has not been examined in great detail in the research field, it is particularly important to begin with real world observations, in order to create a viable theory. The **goals** of this study are:

- using existing theories of internationalization and distribution management to explain measures through which new MNEs can achieve efficient IDL systems when they invest in developed markets,
- exploring the practice to find possible solutions if existing theories are not sufficient for answering the research questions,
- empirical testing of the findings, and
- providing practice-oriented solutions based on the result of empirical testing.

¹ See Dul & Hak (2008), p. 289.

² See Steinmann (1978), p. 73.

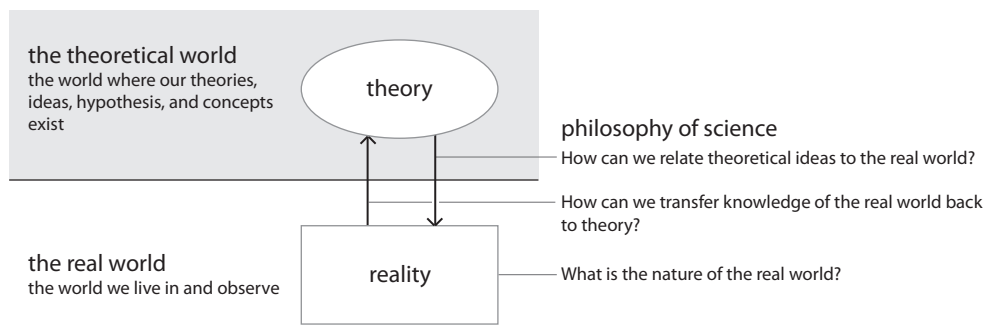


Figure 2.1: Position of philosophy of science in a model of research
(Source: Lee & Lings, 2008, p. 25.)

Object of a study is a stable characteristic of a theory or a practice,³ and the object of this study is “efficiency of IDL systems”. A **domain** is a specification of boundary of the instances for the object of study.⁴ This object is limited to the domain of new MNEs investing in developed market. In order to reduce the complexity of the research, every step in the research process has different research domains according to the research objective:

- For the first goal of the study, the domain is defined to be new MNEs investing in developed markets, with a focus on such firms from China.
- For the second goal of the study, the domain is limited to Chinese manufacturing firms who invest in the European market through outward FDI and the LSPs who cooperate with these Chinese firms.⁵
- For the third goal of the study, the domain is enlarged to Chinese manufacturing firms who invest in developed markets through outward FDI.⁶

The reasons for choosing different domains in different steps of the research process will be described in detail in Part II, III, and IV together with the description of each part of the study.

2.2 Research process

WOLF suggests five steps for conducting research in business studies:⁷

- definition of terms (Begriffsbildung) — precise definition of relevant terms,
- explanation using relevant theories (Beschreibung) — exploring relevant theories or practice for explaining the cause-effect relation,

³ See Dul & Hak (2008), p. 35.

⁴ See Dul & Hak (2008), p. 36.

⁵ The reasons for limiting the domain are explained in Chapter 9.2 on page 111.

⁶ The reasons for enlarging the domain are given in Chapter 13.2 on page 171.

⁷ See Wolf (2008b), pp. 7–9. German terms are translated into English by the author and given a short explanation here, because a simple direct translation might not accurately convey the original meaning. The original terms are given after the translation. A similar alternative to this research process can be found in Chmielewicz (1994), pp. 8–10.

- hypothesis formation (Erklärung) — developing explanatory hypotheses,⁸
- hypothesis testing (Prognose) — testing hypotheses through empirical research,⁹
- managerial implications (Gestaltungsempfehlung) — interpretation of the testing result in order to provide answers to the research questions in practice.

LEE & LINGS describe a seven-step research process based on the logic of reasoning: research question, search for ideas, conceptual development, measurement, data collection, analysis, and interpretation.¹⁰ Reasoning is the process of using existing knowledge to draw conclusions, make predictions, or construct explanations. There are three kinds of logical reasoning: deductive, inductive, and abductive reasoning. **Inductive** reasoning moves from the specific to the general, which means determining the rule based on the conclusions of a number of examples and **deductive** reasoning moves from the general to the specific, which means determining conclusion based on the rule and the precondition.¹¹ **Abductive** reasoning developed by PEIRCE is a method for guessing a precondition given a conclusion and a set of rules. The hypotheses are developed through the inductive reasoning step and later predictions are created using a deductive approach and tested in practice.

A five-step research process for this study is illustrated in Figure 2.2.

- In Step 1, theory exploration is used to develop a conceptual framework for describing the relation between market factors and the strategic importance of IDM, and between resource factors and the efficiency of IDL systems for Chinese firms entering the European market.
- In Step 2, due to insufficient information available in Step 1 for the particular domain addressed in this study, inductive approach is applied through practice exploration to develop a model which is composed of a set of propositions with detailed concepts within the conceptual framework of Step 1.¹²
- In Step 3, hypotheses are generated based on the model developed in Step 2.¹³
- In Step 4, a deductive approach is used to make testable predictions based on the hypotheses and to test these predictions.
- In Step 5, based on the testing results, managerial interpretation is conducted to provide suggestions for practical solutions.

After the research process of the study is defined, it is necessary to design each step of the research process. This is especially important for the two inference steps (2 and 4), where a strategy for obtaining data from the “real world” is needed. In this thesis, case study research with qualitative analysis was chosen for both Step 2 and 4. Case study research is a suitable

⁸ See also the explanation of Fülbier (2004), p. 267.

⁹ See also Wacker (2008), p. 8.

¹⁰ See Lee & Lings (2008), pp. 40–42.

¹¹ See Minto (2008).

¹² The model can be seen as a theory to be tested. The terms “model”, “proposition”, and “concept” are explained in detail in Chapter 9.1 on page 109.

¹³ The term “hypothesis” and its difference to “proposition” are explained in detail in Chapter 13 on page 169.

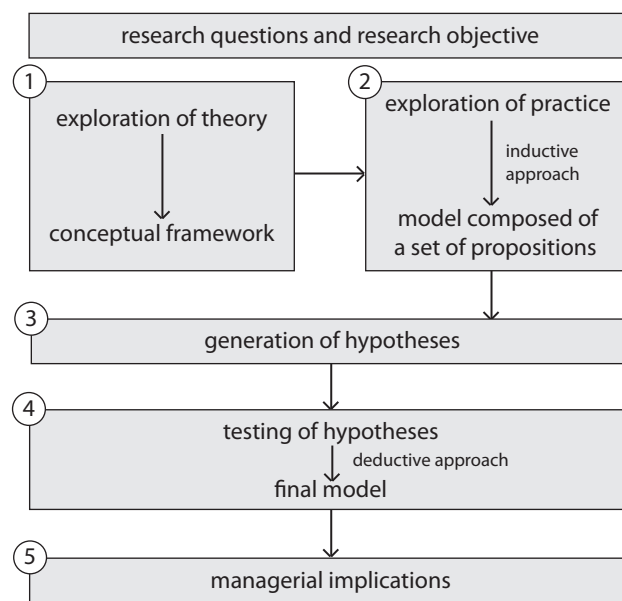


Figure 2.2: Steps in the research process of this study

method for situations where relatively little is known about the research topic or for developing propositions which will be tested.¹⁴ For Step 2, a comparative case study with five cases was used to describe the IDL process of Chinese firms entering European market and to find factors which lead to efficient IDL systems.¹⁵ Detailed reasons for choosing the case study method for this theory-building research will be described in Chapter 9.1 on page 109. One characteristic of the case study method is the so called triangulation research strategy, which refers to the use of multiple data sources, methods, investigators, and theoretical perspectives in a study.¹⁶ This strategy is followed in the collection of data from different sources in Step 2.¹⁷ For Step 4, based on the idea of “analytic generalization”,¹⁸ a serial single case study¹⁹ was used to test the hypotheses. Detailed reasons for choosing the case study method for this theory-testing research will be described in Chapter 13.1 on page 169.

¹⁴ See Eisenhardt (1989); Eisenhardt & Graebner (2007).

¹⁵ Due to the limited available research in the field of the internationalization of Chinese firms, case study research is often used. See for example Liu *et al.* (2008).

¹⁶ See Feagin *et al.* (1991), pp. 57–58.

¹⁷ For details, see Table 9.3 on page 115.

¹⁸ Yin argues that case study can test theory through an “analytic generalization”, which is in contrast to “statistical generalization” used in a survey. See Yin (2009), p. 15.

¹⁹ It may also be seen as a multiple case study according to Yin, or a comparative case study according to Dul & Hak.

Chapter 3

Preview of the thesis

3.1 Structure of the thesis

The structure of the thesis reflects the research process and is composed of five parts, starting with the introduction and finishing with the summary and the outlook. The structure is illustrated in Figure 3.1.

Part II on page 17 describes Step 1 of the research process. It provides a theoretical foundation about distribution management in the internationalization of firms from emerging countries. Based on the object and the domain of the study, a theoretical foundation for the study should include the internationalization of new MNEs, distribution management in the internationalization, and the internationalization of Chinese firms. Chapter 4 on page 17 analyzes the new phenomenon of internationalization of firms from emerging countries and the focus is set on the existing theories which can explain the phenomenon and the drivers, motives, processes, and strategies of the internationalization of new MNEs. Since distribution management plays an important role in the market development of these new MNEs, Chapter 5 on page 41 describes the theoretical fundamentals of distribution management with a focus on international distribution logistics and the cooperation with LSPs. Chinese manufacturing firms are chosen as representatives for the empirical study, so Chapter 6 on page 62 introduces the internationalization of Chinese firms in the last three decades with the focus on FDI of Chinese manufacturing firms. In Chapter 7 on page 88, the theories of MBV and RBV are introduced as explanatory theories for analyzing why some Chinese firms have more efficient distribution systems. Part II is closed with a conceptual framework of IDM for Chinese firms investing in the European market. It is composed of “market” factors and their influence on the strategic importance of IDM, and “resource” factors and their impact on the efficiency of IDL systems. The need for further research is raised, because the conceptual framework can not be further refined with concrete concepts based on available research.

Part III on page 109 describes Step 2 of the research process. In this part, theory-building research is introduced in order to find solutions for having an efficient IDL system for a new MNE entering a developed market. Chapter 9 on page 109 describes the reasons for choosing

the comparative case study method for theory-building research and the research approach. In Chapter 10 on page 117, the IDM of the Chinese firms entering European market in these five cases is described as a report of the exploration of practice. The data collected from the case study are analyzed based on the theoretical foundation provided in Part II and propositions are generated in Chapter 11 on page 145. Part III is closed with a model of efficient IDL systems for Chinese firms investing in the European market, which is developed based on the propositions. The model consists of five “market” concepts which influence the strategic importance of IDM and twelve “resource” concepts which have an impact on the efficiency of IDL systems. Moreover, the need for further research is raised because this model is developed based on a limited number of cases.

Part IV on page 169 describes Steps 3, 4, and 5 of the research process. In Chapter 13 on page 169, the reasons for choosing a serial single case study for the theory-testing research is given and the propositions developed in Part III are transformed into hypotheses. In Chapter 14 on page 182, the data collected from the case study are analyzed and the theoretical contribution of the study is discussed based on the result of the theory-testing research. In the end, managerial implications based on the interpretation of the result are given as suggestions for the practice.

The last part of the thesis **Part V on page 208** first gives a summary of the research approach of the whole study and the essential results of the study. In the end, the limitations of the study are analyzed and suggestions for future research are given.

There are three **Appendices**: A) a list of abbreviations used in the thesis, B) a list of all interview questions for both theory-building and theory-testing research, and C) a the list of firms mentioned in the thesis. Since a large number of firms are mentioned in the thesis, usually only short names of the firms are given in the text. In Appendix C on page 225, all the mentioned firms are listed with their full names and the sectors of their main businesses.

3.2 Short summary of results

This thesis presents a study which finds answers to the question “how can new MNEs set up efficient IDL systems when they enter developed markets”. The main theoretical contributions of this thesis are:

- The study provides an overall view of the development and characteristics of Chinese firms’ internationalization and first-hand information about their IDM. The information contributes to the literature of internalization of new MNEs, which is a topic that has not been sufficiently covered so far.
- The study extends the theory of RBV in the field of internationalization by discovering the potential of internal and external resources that can enhance the efficiency of firms’ IDL systems. In addition to the resource perspective, this study also includes the market perspective and provides a more complete picture of IDM for a new MNE entering developed markets.

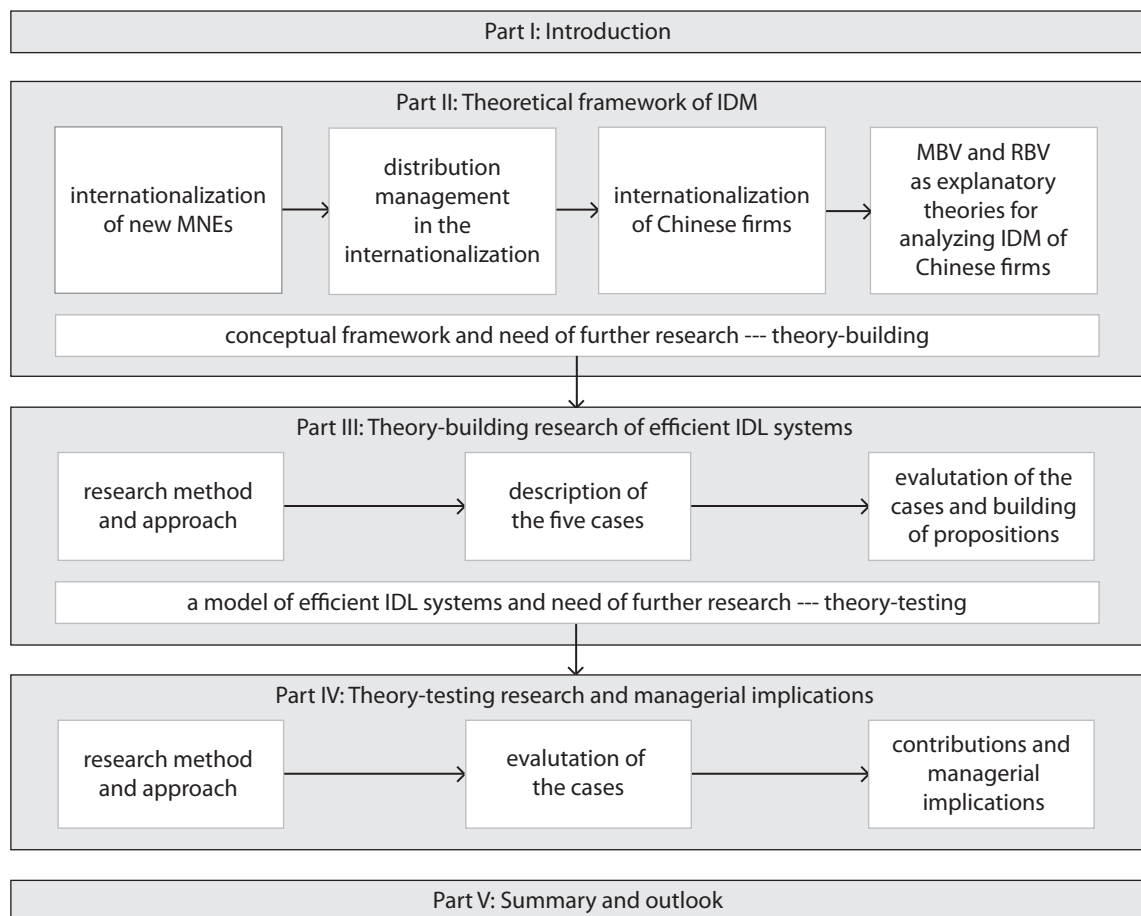


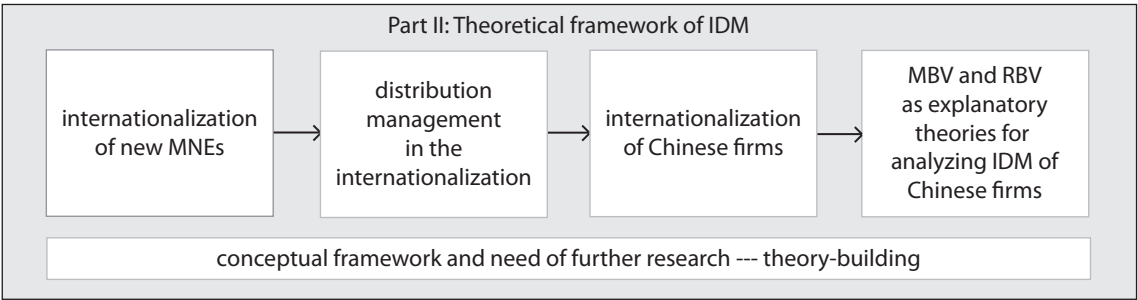
Figure 3.1: The structure of this thesis

- The study provides a model of efficient IDL systems for Chinese firms entering developed markets with FDI activities, and suggests important resources for increasing the efficiency of IDL systems. Since distribution has often been neglected by theorists in the research field of internalization, this is another important addition to the existing literature.
- Although this study examines Chinese firms, the conceptual model of market-resource-performance in IDL can also be applied to firms from other emerging economies. The model offers a good basis for further research of new MNEs' market development strategies.

Based on the result of the study, a number of managerial implications are listed for Chinese firms who have entered developed markets or are planning their internationalization to such market, and to LSPs who are planning to cooperate with such Chinese firms.

Part II

Theoretical framework of IDM



Chapter 4

Internationalization of firms from emerging countries

This study examines the research field of “distribution management” in the context of internationalization of firms from emerging countries investing in developed countries. Because of this, it is necessary to take a look at the internationalization of these firms first. The purpose of the theoretical discussion in this chapter is not to criticize the available theories or to generate new theories in the field of international management, but to use the main available theories to analyze the characteristics of internationalization of the firms from emerging countries. The first section will introduce a new phenomenon in the globalization — the “new MNEs”. The second section will present the fundamentals of internationalization — definitions of relevant terms and theories. Based on the available theories, the third section will analyze the drivers, motives, processes, and strategies of the new MNEs’ internationalization. The last section highlights the role of distribution management and thus serves as an introduction to the next chapter.

4.1 A new phenomenon in the globalization – the new MNEs

The internationalization of firms is a process which started more than a century ago. In the late 19th and the early 20th century, European firms’ investment abroad was driven primarily by the need for raw materials.¹ The investment of American industrial firms, such as Ford, prior to the First World War was driven by market and efficiency-seeking through setting up production sites in locations close to the sales markets,² as was the foreign investment of Japanese firms shortly after the Second World War. [DICKEN](#) claims that “old geographies of production, distribution and consumption are continuously being disrupted; new geographies are continuously being created”.³ Since the second half of the 19th century, a global division of labor was intensified as

¹ For more details about the historical development of the internationalization of European firms see [Franko \(1976\)](#).

² For more details about the historical development of the internationalization of American firms see [Wilkins \(1974\)](#).

³ [Dicken \(2007\)](#), p. 32.

a result of industrialization, in which the industrializing economies of the West (the USA and Western European countries) became increasingly dominant in a core-periphery⁴ configuration. However, over time this structure has become more complex and has also changed in its geographical composition. Taking Asia as an example of possibly the most significant change in the geography of the world economy during the past 40 years, the following major developments can be identified:⁵

- the rise of Japan since the 1950s,
- the rapid growth of the “Four Asian Tigers” – Hong Kong, Singapore, South Korea, and Taiwan⁶ since the 1960s,
- the economic reform of China in the 1980s and the rapid growth afterwards,
- the growth of India since the beginning of the 21st century, and
- the economic boom in the United Arab Emirates in the last few years.

A significant aspect of East Asian development was and is the tendency of Japanese, Korean, Taiwanese, Hong Kong, Singaporean, and most recently Chinese firms to expand overseas through direct investment in addition to trade.⁷

In addition to these Asian countries, many other developing countries have integrated themselves into the world economy in the past over two decades. SAUVANT claims that the outward FDI from emerging markets is not a new phenomenon.⁸ A new phenomenon is that many firms from emerging markets have exploited new opportunities in foreign markets and managed to build world-class MNEs. These firms are called “third world multinationals”⁹ by WELLS, “the rise of ‘the rest’ ”¹⁰ by AMSDEN, and “newcomers” or “latecomers”¹¹ by MATHEWS. In this thesis, these firms are referred to as “new MNEs”.¹² Some of these firms have already reached global leadership positions, for example CVRD (Brazil) in the natural resources sector, Huawei Technologies (China) in the telecommunications sector, Cosco Group (China) in the logistics sector, Bharat Forge (India) in the automotive components sector, and Coteminas (Brazil) in the fast-moving consumer goods sector.¹³ Based on its regular survey, BCG gives a list of top 100 new MNEs, who are, or are becoming, global leaders in their sectors. Figure 4.1 gives an overview of countries where these new MNEs come from and the sectors they present.

⁴ Based on the core-periphery theory, when one region or state expands in economic prosperity, it must engulf regions nearby to ensure ongoing economic and political success. Thus as general prosperity grows worldwide, the majority of the growth is enjoyed by a ‘core’ region of wealthy countries. The “periphery” are those countries that are not getting the benefits of global wealth and globalization.

⁵ See Dicken (2007), pp. 43–45; for more about the shifting of economic centers from the West to the East see Steingart (2006).

⁶ In Chinese-speaking regions, they are referred to as “Asian Four Little Dragons”, while “Four Tigers” refers generally to Indonesia, Malaysia, the Philippines and Thailand, which also have high rates of manufacturing growth.

⁷ See Dicken (2007), p. 46.

⁸ See Sauviant (2008), p. 5.

⁹ Wells (1983).

¹⁰ Amsden (2003).

¹¹ Mathews (2002).

¹² The detailed definition of “new MNEs” is given in Chapter 4.2.1 on the next page.

¹³ See BCG (2009), pp. 7–8. There are more MNEs from emerging markets listed in Khanna & Palepu (2006a), p. 42 and Sauviant (2008), pp. 3–4.

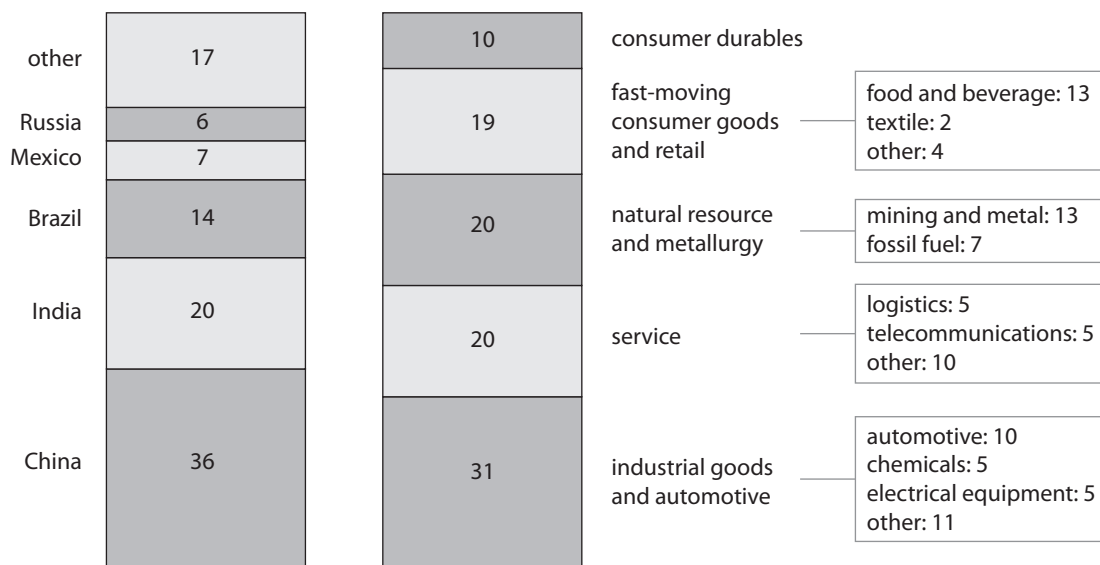


Figure 4.1: The new global challengers from emerging markets
(Source: BCG, 2009, p. 18. For the methodology used to select these 100 new global challengers see BCG, 2009, p. 15.)

4.2 Fundamentals of internationalization

In order to examine the phenomenon of the rising new MNEs, it is necessary to have a look at theories of internationalization and to try to analyze why and how these firms start their international expansion by using these theories. The first part of this section will give the definitions of relevant terms. The second part will introduce several selected theories of internationalization and analyze whether they can explain the international expansion of these new MNEs.

4.2.1 Definition of relevant terms

In the literature, the term **internationalization** is used to describe a variety of research topics, from cross-border activities, forms of market entry, and to managing a foreign subsidiary.¹⁴ Scholars generally define “internationalization” from the process point of view. WELCH & LUOSTARINEN define internationalization as “the process of increasing involvement in international operations”.¹⁵ BEAMISH expands the definition to “the process by which firms both increase their awareness of the direct and indirect influences of international transactions on their future, and establish and conduct transactions with other countries”.¹⁶ CALOF & BEAMISH argue that internationalization is not necessarily a process of “increasing” involvement and give the definition as “the process of adapting firms’ operation (strategy, structure, resource, etc.) to international environments”.¹⁷ A definition of HITT *et al.* focuses on the geographic expansion across borders of global regions and countries in different locations or markets.¹⁸ MATHEWS

¹⁴ See Schneider (2004), p. 27; Perlitz (2004), p. 8.

¹⁵ Welch & Luostarinen (1988), p. 36.

¹⁶ Beamish (1990), p. 77.

¹⁷ Calof & Beamish (1995), p. 116.

¹⁸ See Hitt *et al.* (1997), p. 768.

argues that most definitions tend to use the “push-oriented” concept. However, in the case of the new MNEs, their internationalization can be more a “pull” process than a “push”. Thus he defines internationalization as “the process of the firms becoming integrated in international economic activities”.¹⁹ A firm can internationalize in all different functions, such as sales, sourcing, production, research and development (R&D), financing, etc.²⁰ In this thesis, the term internationalization is used primarily for the sales and distribution activities in foreign markets.

The term **globalization** is not accurately defined and often used as a synonym for internationalization in publications.²¹ KUTSCHKER & SCHMID summarize that globalization presents a special and widest form of internationalization with a holistic view of the world markets.²² From the macro economic point of view, IMF describes globalization as “the growing economic interdependence of countries worldwide through increasing volume and variety of cross-border transactions in goods and services, freer international capital flows, and more rapid and widespread diffusion of technology”.²³ The discussion in this thesis stays on the firm level and only uses the term “internationalization”.

There is also no standard definition of international firms. For example, MACHARZINA & WOLF consider firms starting with simple cross border activities such as export to be international firms,²⁴ but SELL defines international firms as multinational firms with a link to FDI.²⁵ A definition which is widely accepted in academic and business circles considers a multinational firm as “an enterprise that engages in FDI and owns or, in some way, controls value-added activities in more than one country”.²⁶ Different terms are used to name such firms, for example MNE, multinational corporation (MNC), or transnational corporation (TNC). In this thesis, **MNE** is used for the firms with outward FDI activities. According to measures such as turnover or number of employees, MNE usually refers to large firms, who have established their businesses at home and then expanded abroad.²⁷ However, firms are or can be “born global” today. They can seek suitable suppliers, production locations, or markets worldwide from the moment they start their business.²⁸ Since the selected cases in the two case studies in Part III and Part IV — the Chinese MNEs — are for the most part not born global firms, but have developed in the classical way, there will be no deep discussion about born global firms.

According to OECD, **FDI** “reflects the objective of obtaining a lasting interest by a resident entity in one economy other than that of the investor”.²⁹ The important issue in FDI is the “lasting interest”, which implies the existence of a long-term relationship between the investor and the foreign affiliate. The other important issue is that the investor has control over the

¹⁹ Mathews (2002), p. 41. The “integration” in the definition includes both “push” and “pull” factors.

²⁰ See Perlitz (2004), p. 8.

²¹ Globalization is often used in place of internationalization as a buzzword in non-academic publications.

²² The detailed explanation and literature review of globalization see Kutschker & Schmid (2008), pp. 159–161.

²³ IMF (1997), p. 45.

²⁴ See Macharzina & Wolf (2008), p. 927.

²⁵ See Sell (1994), p. 102.

²⁶ Dunning & Lundan (2008), p. 3.

²⁷ See Isenberg (2008), p. 107.

²⁸ See Laanti *et al.* (2007).

²⁹ OECD (1996), p. 7.

transferred resources.³⁰

The term “**new MNE**”, which is introduced in Chapter 4.1 on page 17, is used in this thesis for firms from emerging countries, who conduct outward FDI.³¹ “Emerging countries”³² refers to a group of developing countries experiencing rapid economic development. There is no official list of emerging countries, but according to the Morgan Stanley Emerging Market Index, there are 21 countries of this type in 2010.³³ MATHEWS separates one group out of the new multinationals as the “latecomer” MNEs, which refer to the firms originated from the late-developing countries, typically in East or South Asia or Latin America.³⁴

4.2.2 Theories of internationalization

Numerous theories of internationalization have been developed in order to explain international trade and activities of firms in international expansion. However, due to the dynamic and fast changing environment, these theories can only explain internationalization of MNEs under some conditions.³⁵ There is currently no theory which can completely explain internationalization, and each one of them is like a piece of puzzle which contributes to the understanding of the whole picture.³⁶ Theories for explaining FDI on the macroeconomic (country) level will not be discussed in this thesis, because the research object is based at the firm level.³⁷ Some representative theories about FDI on the microeconomic level (firm level) will be described in the following.

Development of mainstream theories

The neoclassical theory of foreign trade, which was dominant in the 1960s, can no longer explain the internationalization activities of MNEs.³⁸ HYMER pioneered a new approach in his Ph.D. thesis in 1960 and tried to explain the FDI activities of American MNEs with monopolistic advantage.³⁹ Together with his supervisor KINDLEBERGER, they created the **monopolistic advantage theory**.⁴⁰ In contrast to the neoclassical theory, the monopolistic advantage theory moved the research field from foreign trade to production abroad. The theory was developed

³⁰ See Dunning (1992), p. 5; UNCTAD (2007), p. 245; Peng (2008), p. 197.

³¹ This term was introduced by WELLS in the early 80s. He calls these firms “the new multinationals”, see Wells (1983), p. 9.

³² They are also called emerging economies or emerging markets. All three terms are used in this thesis interchangeably.

³³ See MSCI (2010). These countries are Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

³⁴ See Mathews (2002), p. 30.

³⁵ See Goldstein (2009), p. 74.

³⁶ See Perlitz (2004), p. 115; Beausang (2003), p. 33.

³⁷ Some representative theories about FDI on the macroeconomic level see for example MacDougall (1960) and Kojima (1978).

³⁸ See Mathews (2002) and CAVES’s exploration of the economics of MNEs in Caves (1996) and Caves (1998), pp. 5–19.

³⁹ See Hymer (1976). It was first published as his Ph.D. thesis at MIT in 1960.

⁴⁰ See Kindleberger (1969).

based on the assumption of market imperfections. When a firm enters a new market, the domestic competitors are expected to have superior local market information, therefore the MNE needs to have internal advantages, such as technology, know-how, or marketing to overcome its disadvantages in a foreign market. HYMER believes that “Firms are by no means equal in their ability to operate in an industry. Certain firms have considerable advantages in particular activities. The possession of these advantages may cause them to have extensive international operations of one type or another.”⁴¹ He also believes that these internal advantages can turn to monopolistic advantages due to market imperfections. KINDLEBERGER identifies four kinds of cases that lead to market imperfections: economy of scale, goods market, production factors, and government imposed disruptions.⁴² According to HYMER, having “ownership advantages of firms” is a necessary condition for a firm to become MNE. However, the monopolistic advantage theory has its limitations. The research was based on American MNEs in oligopoly sectors, thus it is difficult to use the theory to explain the internationalization of the new MNEs.

A different approach in the 1960s was the **product cycle model** introduced by VERNON in 1966.⁴³ The basic concept is that products have different stages of development — new, mature, and standardized product stages (see Figure 4.2). In the innovation stage for new products development, the production is located in the home country and produces for the domestic market, because the new product needs high flexibility and qualified workers. Moreover, the product price at this stage has low elasticity, so good communication between producers, suppliers, and customers is needed. Short geographical distance can make communication more effective and efficient. In the mature product stage, a certain degree of standardizing has taken place and the need for flexibility declines. It is now possible to achieve economies of scale through mass production and to expand the markets, so the product is exported first to developed countries⁴⁴ and then to less developed countries. On the other hand, price becomes more important to the consumers, so cost cutting becomes a more important issue at this stage. With the increase in demand, foreign production sites are established. In the standardized product stage, there is no innovation-based oligopoly or advantage in market knowledge. Price factor is the most deterministic force in competition, so the production sites are moved to low-cost countries and products will be re-imported to home or other markets.⁴⁵

However, due to many new circumstances, such as shortened product development time and life cycle, reduction of income difference between countries, increasing innovation activities, VERNON’s theory is becoming weaker. Nowadays, large MNEs throw new products almost simultaneously in different countries regardless of the development status of the country. Moreover, the theory can hardly explain the internationalization of the so called “born global” firms,

⁴¹ Hymer (1976), p. 41.

⁴² See Kindleberger (1969) for detailed discussions. Economy of scale enables firms to pool activities across borders. Unbalanced goods market in price gives firms chances of arbitrage. Production factor imperfection allows firms to locate labor-intensive operations in low-cost countries. Government imposed disruptions can be taxation or tariff measures, which make firms locate production somewhere behind tariff barriers. See Mathews (2002), p. 168.

⁴³ See Vernon (1966).

⁴⁴ The research was again based on American MNEs, who first produce in the USA, and then expand to similar advanced markets such as Western European countries.

⁴⁵ See Vernon (1999), p. 15–22; Perlitiz (2004), pp. 95–96; Welge & Holtbrügge (2006), p. 58–60.

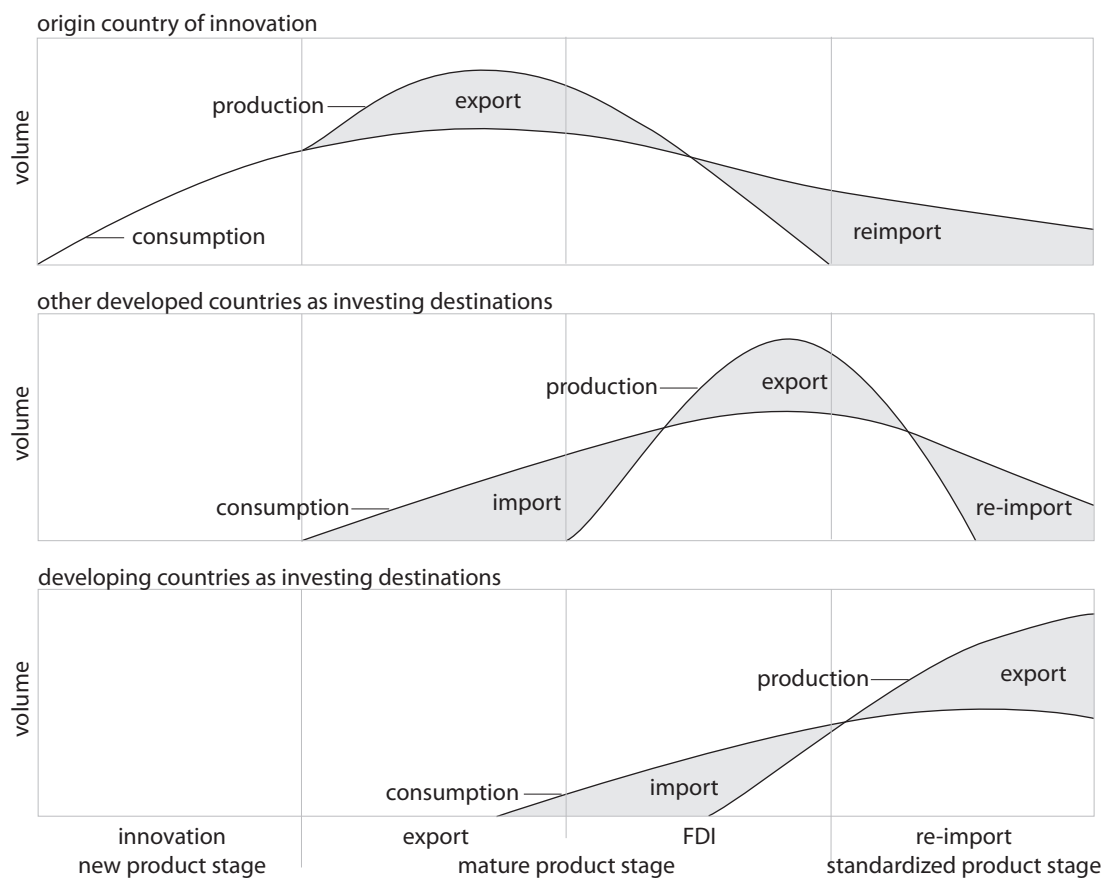


Figure 4.2: Vernon's product cycle model in the internationalization
(Source: [Welge & Holtbrügge, 2006](#), p. 59.)

and the internationalization of firms from emerging markets usually does not follow the model either.

These theories are based on the research of MNEs from the USA, Western Europe, and (increasingly since the 1970s) Japan, which started with strong domestic bases. Competitive advantages built up in their home countries, such as technology, management know-how, and assets, helped them expand abroad.⁴⁶ In the 1970s, transaction cost economics, originally developed by COASE,⁴⁷ was applied to explain the internationalization of MNEs. BUCKLEY and CASSON are two representatives of the researchers who developed the **internalization theory** in 1976. Under the assumption of an imperfect market and the pursuit of maximized profit, a firm should choose such an organizational form that the transaction cost is minimal and the transactions are the most efficient.⁴⁸ Based on this idea, BUCKLEY and CASSON see the existence of MNE as the result of internalization of activities and resources. An MNE is regarded as an “island of organization” in a “sea of market-mediated transactions”.⁴⁹ A firm’s international expansion is determined by the difference of transaction costs between keeping certain activities internally and outsourcing them to external suppliers. When it is cost-effective to internalize, the activities will be conducted within the firm. The advantages of internalization in FDI are for example acquisition of raw material or cheaper resources, minimization of taxation liabilities, or even protection of know-how. The internalization theory shares the same precondition as HYMER’s theory — the imperfection of the market and economic monopoly. However HYMER sees monopolistic advantages as a prerequisite for becoming an MNE, but without discussing the cost of achieving the monopolistic advantages. BUCKLEY and CASSON deem that monopolistic advantages are the reward of internalization. Therefore, improving the management and the coordination of a firm is important for reducing transaction costs and, in consequence, for achieving monopolistic advantages.

By the end of the 1970s, these theories were consolidated by DUNNING into an “eclectic” theory of multinational advantages.⁵⁰ **The eclectic theory** is one of the few theories which try to achieve a total perspective about internationalization.⁵¹ It was developed based on three theories — the monopolistic advantage theory, the location theory,⁵² and the internalization theory (see Figure 4.3). It is also called the OLI-theory, because in the theory the FDI activities are explained through the “ownership” advantage, the “location” advantage, and the “internalization” advantage.⁵³

- The “ownership” advantage can be derived from extending a firm’s proprietary assets abroad, such as brands, technology, patents, management know-how, market conditions

⁴⁶ See Mathews (2002), p. 168.

⁴⁷ See Coase (1937).

⁴⁸ See Casson & Buckley (1976).

⁴⁹ See Mathews (2002), p. 168.

⁵⁰ See Dunning (1977).

⁵¹ See Zentes *et al.* (2004), p. 67.

⁵² The location theory was originally from HECKSCHER and OHLIN’s “factor endowment” theory. They deem that trade takes place because of different endowments of the factors of production (for example natural resources, labor, market demand, policies) in different countries. See Ohlin (1967).

⁵³ See Dunning (1992), pp. 79–80; Perlitz (2004), p. 109; Welge & Holtbrügge (2006), p. 71.

(for example governmental measures to promote foreign investment). This brings advantages to the investing firm over the domestic competitors. This concept is obviously built on the monopolistic advantage theory.

- The “location” advantage can be gained from integrating activities across the world, by going to locations where there is a potential advantage to be achieved, such as low factor costs, low resource costs, good infrastructure, safe political and legal framework, and etc.
- The “internalization” advantage can be derived from building economies of scale and scope through internalizing activities in different countries across the world, when the cost of internalization is lower than that of outsourcing the activities to other firms.

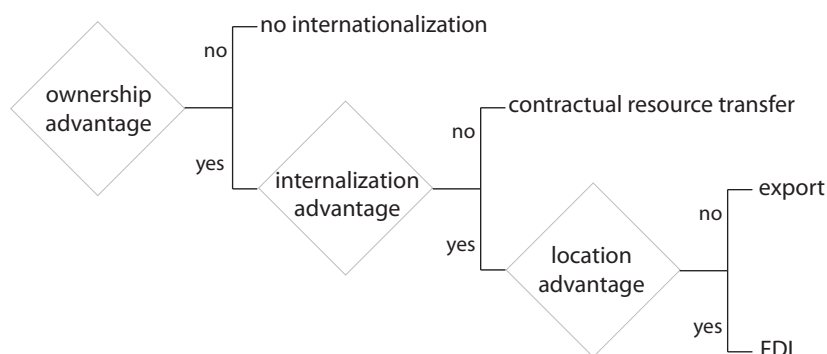


Figure 4.3: DUNNING’s decision tree for internationalization

(Source: [Kutschker & Schmid, 2008](#), p. 448; [Perlitz, 2004](#), p. 110; [Welge & Holtbrügge, 2006](#), p. 77.)

DUNNING tried to build his eclectic theory into a “general theory” about FDI of MNEs. The theory summarizes “a shopping list of variables”⁵⁴ which explain the FDI activities. Moreover, it tries to explain not only the FDI activities of MNEs from developed countries, but also from developing countries based on this model. In the 1980s, PORTER and others formulated a more general theory of competitive advantage, which will not be described here, because it does not deal with the specifics of FDI. Thus the eclectic paradigm remains the dominant theoretical account for explaining the existence of MNEs and the sources of their advantages over domestic rivals.⁵⁵

Process-oriented theories

A rather different approach to internationalization is the process-oriented approach, represented by the so called “Uppsala school”. Researchers with this approach believe that firms’ internationalization is an incremental, organizational learning experience. This approach was developed based on the “behavioral theory of the firm” and the “theory of the growth of the firm”.⁵⁶

⁵⁴ This aspect of the eclectic theory has been the most criticized. Too many variables made the theory so complex that is almost not possible to test it in practice. DUNNING was aware of the limitation of his model and later he called it “eclectic paradigm” or “systematic framework”. See [Dunning \(2000\)](#).

⁵⁵ See [Mathews \(2002\)](#), p. 169.

⁵⁶ See [Mathews \(2002\)](#), p. 187. The behavioral theory was published by [CYERT & MARCH](#) in 1963. For more details about the theory see [Cyert & March \(1992\)](#). The theory of the growth of the firm was published by [PENROSE](#) in 1959 and developed in the 1990s into the RBV of a firm. More details about the theory of the growth of a firm can be found in [Penrose \(1995\)](#).

AHARONI was the first to apply the behavioral theory to explain why and how firms decide to internationalize.⁵⁷ He claims that the decision of FDI is not made out of the rational calculation of the “homo economicus”, but rather coincidence, results of negotiation process between the organizational members, chance encounters, or even hazard. There are different forces in the initial phase which drive a firm to the decision of direct investment, for example.⁵⁸

- Influential proposals from an outsider, for example foreign government, foreign trading partner or client.
- Fear of losing a foreign market. Even if the firm is already in the market through export, it can still extend it to direct investment due to, for example, high customs or import restrictions.
- The bandwagon effect. It can be either horizontal bandwagon effect, which means the firm is pushed by successful foreign activities of its competitors; or vertical bandwagon effect, which means the firm follows its important customers or suppliers to foreign markets.
- Counteraction to the direct investment from foreign competitors in the home market.

What’s important in AHARONI’s approach is that internationalization of a firm is an expansion process based on a learning process, so “the firm would prefer to test the market by exporting to it before any investment program begins. The investment itself often starts with assembly or packaging operations, or in product lines in which the size of the capital investment is low.”⁵⁹ With the increasing experience in foreign investment, the uncertainty and fear of risk of the decision makers will be reduced.

This process-oriented approach was elaborated most thoroughly in Nordic countries. The group from Uppsala University in Sweden developed a process-oriented account based on the internationalization of Swedish and Finnish firms. They introduced a model of the basic mechanism of internationalization, which combines state and change aspects. The state aspects include resource commitment to the foreign markets and knowledge about foreign markets. The change aspects refer to decisions to commit resources and the performance of current business activities (see Figure 4.4).⁶⁰ Through selection of target markets, the Uppsala scholars developed a behavior-based alternative to the economic rationalist view. Based on their model, firms should first start the expansion into countries with shorter “psychic distance” to their home market.⁶¹ Regarding the degree of internationalization, the Uppsala scholars introduced a concept called “establishment chain” — a four-stage process of internationalization from no regular export, independent representative or agent, sales subsidiary, to production.⁶² Like the idea of AHARONI, the process developed by Uppsala scholars was driven by firms’ accumulated knowledge of foreign markets.

⁵⁷ See Aharoni (1966).

⁵⁸ See Aharoni (1998), pp. 8–11; Perlitiz (2004), pp. 97–99; Welge & Holtbrügge (2006), pp. 62–64; Kutschker & Schmid (2008), pp. 411–412.

⁵⁹ Aharoni (1966), pp. 150–151.

⁶⁰ See Johanson & Vahlne (1977), p. 26.

⁶¹ “Psychic distance” is a term which was introduced by HORNEILL, JOHANSON, and WIEDERSHEIM-PAUL. It is defined as “the sum of factors preventing the flow of information from and to the market”. Examples are culture, language, education, level of economic development. See Johanson & Vahlne (1977), p. 24.

⁶² See Johanson & Vahlne (1977), p. 24.

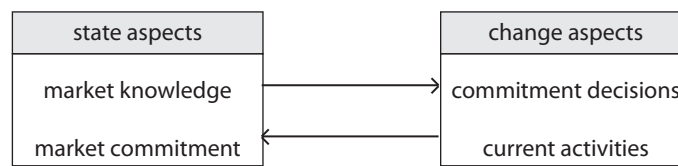


Figure 4.4: Uppsala School's model of the basic mechanism of internationalization
(Source: [Johanson & Vahlne, 1977](#), p. 26.)

The Uppsala School's approach has been tested by many other scholars and was found to be more suitable for explaining the internationalization of small and medium-sized enterprises (SMEs), but not for large firms who are more capable in withstanding risks.⁶³ Other research showed that the Uppsala approach can explain market-seeking internationalization well but is not strong for resource-seeking, efficiency-seeking, or strategic asset-seeking firms.⁶⁴ Based on this research and critique, the Uppsala School's approach has been refined over the years. In the end of the 1980s and beginning of 1990s, some Swedish scholars introduced the extended concept of expansion via network linkages.⁶⁵ One single firm's existence depends on the resources controlled by other firms, and firms have access to these external resources according to their position in a network. Therefore the internationalization of a firm is a process of building and developing partnerships in the network of international markets.⁶⁶

Theories of new MNEs

As described in Chapter 1.2 on page 3, most research on internationalization has focused on large MNEs from developed economies. However, firms from emerging economies do not usually possess competitive advantages such as new technology, advanced management skills, and monopolistic advantages compared to these large MNEs. Then why do these firms invest in foreign markets? What kind of competitive advantages do they have to survive the internationalization? In the middle of the 1970s, some scholars started to give attention to firms from emerging economies. WELLS analyzed the motivation and competitive advantages of the internationalization of the "third world MNEs"⁶⁷ based on an empirical survey of 963 manufacturing firms from developing economies, such as Hong Kong, India, Argentina, and Korea.⁶⁸ The following competitive advantages of these firms were identified:⁶⁹

- Small-scale manufacturing which can serve small markets. These technologies for small-

⁶³ For some examples, see [Bilkey \(1978\)](#) on American SMEs in Wisconsin, [Johansson & Nonaka \(1983\)](#) on Japanese firms, [Bonaccorsi & Dalli \(1992\)](#) on Italian SMEs, and [Ali & Camp \(1993\)](#) about the relevance of firm size to market entry strategies.

⁶⁴ See [Petersen & Pedersen \(1997\)](#).

⁶⁵ See [Johanson & Mattsson \(1988\)](#).

⁶⁶ See [Johanson & Mattsson \(1988\)](#), p. 453.

⁶⁷ The "third world" was only used occasionally by WELLS in his book "Third World Multinationals" to probably make the title more attractive. He basically meant "developing countries" when using the "third world". See [Wells \(1983\)](#), p. 8.

⁶⁸ Unfortunately no Chinese firm was included in the survey, because the survey was conducted between 1975 and 1978, just before the Chinese economic reform. For details about the Chinese economic reform, see Chapter 6.1.1 on page 62.

⁶⁹ See [Wells \(1983\)](#), pp. 19–66.

scale manufacturing are usually acquired from developed countries and are adapted to the local market demand. They are mostly labor-intensive and flexible, so they fit to the market situation of other developing countries.

- Local procurement and special products. These firms develop their solutions with local material and resources in order to avoid high cost of purchasing technology from developed countries. These solutions and special products can be expanded to other developing countries with similar demand.
- Access to markets and low marketing cost. In contrast to the MNEs from developed countries, who have large investment in marketing in order to establish brand names, these firms follow a low cost strategy.

The theory of WELLS builds on the product cycle model from VERNON and deems that only standardized product in the end of the product life cycle is produced in developing countries and then exported to other countries. This theory may explain the internationalization of firms from developing countries at that time, but it can not explain the concurrent phenomenon described in Chapter 4.1 on page 17, that many firms from developing countries are becoming global challengers to MNEs from developed countries.

Unlike WELLS' theory of "passive" technology utility, LALL puts a stronger emphasis on innovation of firms from developing countries in order to achieve "proprietary advantages".⁷⁰ Procurement, modification, and use of technologies from developed countries are not passive imitation or copying, but active innovation to fulfill the local market demand and further the demand of other similar foreign markets. Thus, these firms can achieve comparative advantage in competing against the products of MNEs from developed countries. However, due to the limited internationalization scope of the firms from developing countries at that time, both WELLS' and LALL's research were based on surveys of firms who invest in developing countries, so the research concentrated on questions such as how investors from India can compete with subsidiaries of American or British firms in Thailand.

In late 1980s, firms from developing countries started to expand their business to developed countries, and some of them even became strong competitors of domestic firms. CANTWELL & TOLENTINO tried to explain this phenomenon with the concept of "technological accumulation".⁷¹ Technological innovation is the essential driver for the growth of firms from both developed and developing countries. However, innovation of firms from developed countries mostly takes place in the fields of advanced and high technology, requiring a huge amount of investment in R&D. Innovation of firms from developing countries is usually different, it is a process of technological accumulation based on their "special learning experience"⁷² — learning and development of available technologies. Moreover, technological accumulation has changed the industrial structure of developing countries, so instead of traditional industries such as natural resources, textile, and toys, new MNEs are moving to new fields such as chemistry, computer, electronics, telecommunications, and biotechnology.

⁷⁰ See Lall (1983).

⁷¹ See Cantwell & Tolentino (1990) and Tolentino (1993).

⁷² See Cantwell & Tolentino (1990), p. 24.

There have been some discussions about whether new theories are needed to explain the internationalization of new MNEs from developing countries. For example, scholars of the mainstream theory of internalization such as DUNNING argue that the OLI model can also be applied to new MNEs,⁷³ although competitive advantages of these new MNEs are very likely to be different from those of MNEs from developed countries.⁷⁴ MATHEWS analyzed the new MNEs from a resource-based perspective and extended the model to a so called OLI* framework — outward-orientation, linkage and leverage, integration.⁷⁵

The purpose of describing the major theories of internationalization in this thesis is not to develop new theories for firms from emerging economies, but to use the available theories to explain the internationalization activities of new MNEs. It is even more important to provide a framework for analyzing distribution activities in internationalization of such firms.

4.3 Internationalization of new MNEs

Based on fundamental theories about internationalization, this section will analyze external drivers and internal motives of the new MNEs' internationalization. The second part of this section will discuss whether new MNEs go through the same process of internationalization as conventional MNEs.

4.3.1 Drivers and motives

In order to explain the reasons why new MNEs invest abroad, both the drivers and motives should be analyzed. Drivers are the external influential aspects, which can be divided into push and pull factors.⁷⁶ Motives, on the other hand, are the firms' internal incentives. Figure 4.5 shows the relation of (external) drivers and (internal) motives which make firms go abroad.

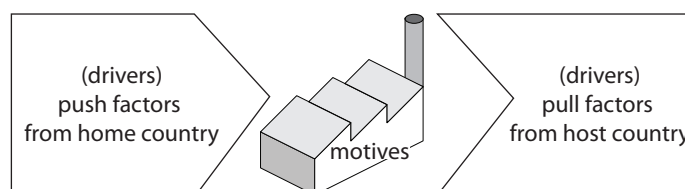


Figure 4.5: Relation of drivers and motives for firms' internationalization

⁷³ See Dunning *et al.* (1998).

⁷⁴ See for example Dunning (2000), p. 164.

⁷⁵ See Mathews (2002), pp. 175–178.

⁷⁶ There are different classifications for the drivers of internationalization. A relatively common classification, which is also used by UNCTAD in its annual “World Investment Report”, is the differentiation of push and pull factors. See for example UNCTAD (2006), p. 155.

Drivers

Push factors, also called inland drivers, are influential factors from home countries. Pull factors are influential factors from the host countries of the investment. These factors can be:⁷⁷

- market and trading situation,
- availability of resources,
- regional competition environment,
- political environment, and
- technological development.

Examples of “market situation” push factors are export limitations or trading barriers. For example, many Chinese firms invest in Hong Kong or Cayman Islands in order to bypass export limitations. Investment in R&D or production abroad can be necessary, in order to shorten the distance to local customers and to better fulfill the customers’ demands.⁷⁸ However, “vertical bandwagon”⁷⁹ is rarely the reason for new MNEs to go abroad. Examples of “market situation” pull factors are market volume, market growth, and customer structure. Developed countries in North America and Western Europe offer higher potential for consumption than developing countries due to their high income per capita. Many new MNEs have entered developed markets successfully by understanding which products are suitable for these markets. They focus on niche opportunities in order to avoid a direct competition against domestic firms. A good example is the success of Haier in the USA with two niche products — a compact refrigerator and an electric wine refrigerator. Moreover, with geographical diversification of sales and assets, political and economical risks in the host markets can be reduced.⁸⁰

Many firms from developing countries invest abroad in order to secure access to resources, such as natural or human resources. For example, in the mergers and acquisitions (M&A) transactions of Chinese firms, natural resources such as minerals, petroleum, steel, and crude rubber play an important role.⁸¹ Another example is that firms from Southeast and East Asia, especially Malaysia, Singapore, and Korea moved their production to even lower cost countries. At the moment, the cost of human resources is not a driver for Chinese or Indian firms yet, but will be in the near future due to the fast increase of salaries in these countries.⁸² Moreover, good infrastructure in a country or between the countries can also be a factor to “pull” firms to invest there.⁸³ One of the main reasons for Germany being one of the favorite locations in Europe for FDI is its excellent infrastructure and logistics location in Europe.⁸⁴

The pressure of competition in the home market from either domestic firms or foreign competitors is often a driver pushing firms to go abroad. It is an important reason for the increasing

⁷⁷ See for example UNCTAD (2006), p. 155.

⁷⁸ See Dunning (1992), p. 58.

⁷⁹ See Aharoni (1998), pp. 8–11.

⁸⁰ See Goldstein (2009), p. 139.

⁸¹ See Anonymous (2010b).

⁸² See Matthes *et al.* (2007), p. 45.

⁸³ See Dunning (1992), p. 144.

⁸⁴ See Reinert & Altrichter (2004), pp. 8–9.

FDI of Chinese firms in the last decade. Furthermore, firms from developing countries are more involved in international production networks in sectors such as automotive, electronics, and textile. This involvement leads to increased foreign activities of these firms.

The political environment such as the “Go Out” policy in China motivates and supports the FDI of Chinese firms.⁸⁵ The liberalization in both developed and developing countries, especially the privatization of state-owned enterprises (SOEs) offered more possibilities for outward FDI.⁸⁶ Also, negative economic development such as high inflation rate can be a push factor as well. Typical examples are firms from Chile and Turkey, who intensified their outward FDI in the 1990s due to high inflation.⁸⁷

Technological development has also contributed to increasing internationalization in two important ways. Firstly, the information and communication technology has simplified and accelerated information exchange. Secondly, technological development in transportation has made goods transport faster and cheaper.⁸⁸

Motives

Motives for international expansion are not independent from the drivers, and firms set their goals for internationalization based on motives and drivers together. In the literature, there are different approaches for structuring the motives.⁸⁹ In the following, DUNNING’s approach will be used to analyze the motives the new MNEs for international expansion. The four categories of the motives are:⁹⁰

- resource-seeking,
- market-seeking,
- efficiency-seeking, and
- strategic asset-seeking.

Resource-seeking refers to gaining access to several types of resources. One type of resources is raw material. Due to the rapid development in developing countries, securing raw material is becoming extremely important. Firms from emerging countries, for example CVRD from Brazil, Gazprom from Russia, ONGC from India, and CNPC and CNOOC from China, are competing for raw material to secure their fast growth and also the growth of the countries. Firms in the secondary industry tend to be resource-oriented as well. They prefer to set up subsidiaries in

⁸⁵ For details about the policy of outward FDI in China see Chapter 6.1.3 on page 67.

⁸⁶ See [Accenture \(2008\)](#), p. 12.

⁸⁷ See [Accenture \(2008\)](#), pp. 15–16.

⁸⁸ More about technological improvement see for example [Kutschker & Schmid \(2008\)](#), pp. 179–181.

⁸⁹ See for example [Dunning \(1998\)](#), p. 53; [Berndt et al. \(2005\)](#), pp. 7–8; [Bartlett et al. \(2009\)](#), pp. 215–218.

⁹⁰ See [Dunning \(1992\)](#), pp. 56–60 and [Dunning & Lundan \(2008\)](#), pp. 67–74. [MATHEWS](#) criticized the limitation of these four categories, but mostly based on DUNNING’s publications in the 1960s and 1970s, see [Mathews \(2002\)](#), p. 170. In DUNNING’s later publications, he broadened the content of these categories. For example, “resource” does not only mean raw material, but can also be technological capability, management experience, and organization skill.

countries where it is easy to acquire raw material for the production there, or even for the home country.⁹¹ The other type of resource is cheap and well motivated labor. Unlike firms from developed countries, this is not yet an important motive for the firms from developing countries. Meanwhile, seeking the third type of resources, such as “technological capability, management or marketing expertise and organizational skills”⁹² is becoming an increasingly important motive for new MNEs. For example, many M&A transactions conducted by Chinese firms in North America and Europe were focusing on achieving technology and management skills.

Market-seeking refers to maintaining a firm’s existing markets and opening up new markets in order to increase sales and profit. MNEs with market-oriented goals usually invest in countries where prices and demand are high.⁹³ This is also the reason why more new MNEs are entering developed countries after exploiting the developing markets in their neighborhood. The decision whether or not to follow the market-oriented strategy also depends strongly on the sector.⁹⁴ For example, Suntech makes about 90% of its total sales abroad, mostly in developed countries, because the home market and developing countries are not ready for solar energy products yet.⁹⁵ Another reason for market-seeking investment is gaining presence in leading markets in order to increase market value.⁹⁶ One of the main purposes of Baosteel entering the European market is to test its products and to achieve brand recognition.⁹⁷

Efficiency-seeking used to be the motive only for experienced and large MNEs with standardized products. Going abroad was used either to take advantage of cost or price differences in other markets, or to achieve economies of scale and scope through investing in similar markets.⁹⁸ However, efficiency-seeking is becoming more important for new MNEs as well, depending on the product type and the associated international production network.⁹⁹ For the production of apparel and shoes, firms from Hong Kong, Malaysia, and Taiwan invest in Southeast Asian countries such as Cambodia and Vietnam in order to reduce cost. For the production of electronics, firms invest in for example Malaysia, Singapore, or Taiwan to produce hard disks, because these countries or regions have established their expertise in the global production network for such products.¹⁰⁰

Strategic asset-seeking means acquiring other firms or business units (BU) abroad in order to optimize a firm’s current portfolio and to achieve a new competitive advantage. This motive is usually combined with other motives. The MNEs from developing countries, who are new in the global market, can gain competitive advantages in an unfamiliar market more rapidly this way. For example, the acquisition of IBM’s personal computer (PC) BU offered Lenovo access to the worldwide distribution network, technology, and the expertise of IBM. Strides Arcolab

⁹¹ See Lu (2007a), pp. 49–50.

⁹² Dunning & Lundan (2008), p. 69.

⁹³ See Peng (2008), p. 164.

⁹⁴ See Goldstein (2009), pp. 137–138.

⁹⁵ For details about Suntech’s internationalization see Chapter 10.2.1 on page 125.

⁹⁶ See Dunning & Lundan (2008), p. 71.

⁹⁷ For details about Baosteel’s internationalization see Chapter 10.3.1 on page 130.

⁹⁸ See Dunning & Lundan (2008), p. 72.

⁹⁹ See Memedovic (2004), pp. 16–18.

¹⁰⁰ See Giroud (2004), p. 110.

acquired firms in Italy and Venezuela in order to enter these new markets more easily.¹⁰¹

Table 4.1 summarizes the importance of different motives for MNEs from developing countries.¹⁰² It can be seen that the motives are not equally important for new MNEs. Market-seeking is by far the strongest motive for FDI. For Chinese firms, strategic asset-seeking is the second important motive, but not for new MNEs from other developing countries. In recent years, the number of M&A transactions from Chinese firms has been increasing steadily.¹⁰³ Another reason is that M&A activities are also encouraged and supported by the Chinese government; during the period of the financial crisis in 2008 and 2009, the Chinese government considered it a good opportunity for acquiring strategic assets abroad. Resourcing-seeking is a relatively important motive for emerging countries due to their fast economic development. Efficiency-seeking is relatively important for Indian MNEs, but unimportant for South African or Chinese MNEs. The motives of Chinese manufacturing firms for the international expansion, especially for entering developed countries, will be analyzed in detail in Chapter 6.3.1 on page 78.

Table 4.1: Empirical surveys about motives of new MNEs' international expansion
(Own table based on the data summarized from UNCTAD, 2006, pp. 158–163.)

	resource-seeking	market-seeking	efficiency-seeking	strategic asset-seeking
MNEs (developing countries) ¹⁰⁴	13%	51%	22%	14%
South African MNEs ¹⁰⁵	17%	70%	10%	3%
Indian MNEs ¹⁰⁶	not specified	3.8	3.2	2.3
Chinese MNEs ¹⁰⁷	40%	85%	10%	51%

4.3.2 Process and strategies

Drivers and motives can be used to define the goal of a firm's internationalization. As shown in Figure 4.6, detailed strategies and operative actions should be defined based on the firm's goal

¹⁰¹ See UNCTAD (2006), p. 162.

¹⁰² The results in this table are based on different surveys, which makes a comparison difficult, but they provide a rough overview of the motives for FDI of new MNEs.

¹⁰³ See Li (2009a), pp. 37–39.

¹⁰⁴ Result for “MNEs (developing countries)” is from UNCTAD's global survey of 44 MNEs from developing countries in 2006. Only single answer.

¹⁰⁵ Result for “South Africa MNEs” is from the survey of the Institute of Economic Development Growth & Equity (EDGE) of 57 MNEs from South Africa in 2006. Only single answer.

¹⁰⁶ Result for “Indian MNEs” is from a survey of 36 MNEs from India in 2006. Weighting from 1 (not important) to 5 (very important).

¹⁰⁷ Result for “Chinese MNEs” is from a survey done by Foreign Investment Advisory Service (FIAS), Multilateral Investment Guarantee Agency (MIGA), International Finance Corporation (IFC), and China Center for Economic Research (CCER) of 148 MNEs in 2005. Multiple answers possible.

(top-down). When it is necessary to change strategies or operative actions, the goal can also be modified or reset (bottom-up). The research field in this thesis — distribution management in a firm's internationalization — covers not only the operative level, but should also be applied to the strategic level.

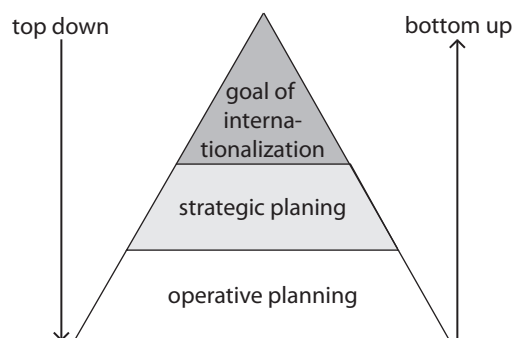


Figure 4.6: Hierarchy of the firm's planning system
(Source: Perlitz, 2004, p. 30.)

Before starting the discussion of internationalization strategies, it is necessary to explain three terms — **process**, **strategy**, and **degree of internationalization** — and their relation. Internationalization of a firm is not a static phenomenon but a process, in which it gradually increases its international involvement. The process is a result of a firm's activities over a specific period of time. These activities are guided by the firm's strategies, which are made based on the firm's goal, so the process of internationalization is a discontinuous dynamic process influenced by the firm's motives, goals, and its environment. In order to measure how far a firm is along its internalization process, the degree of internationalization is measured at different points in time.¹⁰⁸ At these points, different strategies such as entering a new market or involving a new value-added activity in a certain market are applied and result in a change of the degree of internationalization.¹⁰⁹ Figure 4.7 shows the generic relation of process, strategy, and degree of internationalization over a period of time.

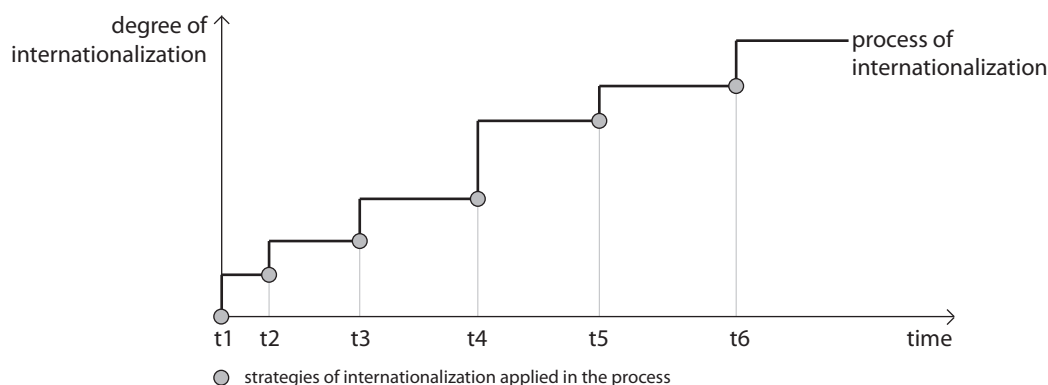


Figure 4.7: The relation of process, strategy, and degree of internationalization

Internationalization strategies consist of a number of different facets, including strategies of timing, target market, market entry and development, and coordination and allocation.¹¹⁰ These

¹⁰⁸ See Simon (2006), p. 34.

¹⁰⁹ See Zentes *et al.* (2004), p. 965.

¹¹⁰ See Kutschker & Schmid (2008), p. 1065.

facets are interconnected and influence each other. Firms need to modify or change their strategies according to the changing environment and competitive situation.¹¹¹ A standard definition of the degree of internationalization is not available, but there are general quantitative and qualitative indicators to measure the degree of internationalization. Common quantitative criteria include the number of entered foreign markets, foreign sales as a proportion of total sales, or foreign investment as a proportion of total investment.¹¹² The qualitative criteria are based on intangible aspects, which are often very difficult to measure. These criteria include the involved value-added activities, the organizational structure, or the integration in host markets. The strategies and the measurement of the degree of internationalization will be discussed in detail together with the process in this section.

Although it is known that internationalization is a dynamic process instead of a static phenomenon, comparatively little literature has followed the process thinking.¹¹³ The Uppsala School developed their model of the firm's internationalization as a process that grows along three dimensions:¹¹⁴

1. international extension — making links with firms in foreign markets,
2. penetration — increasing the commitment in established markets,
3. international integration — enhancing the coordination across the firm.

KUTSCHKER & BAURLE extended this approach to provide a broader setting for considering the process of internationalization:¹¹⁵

1. number of countries entered and geographic-cultural distance of these countries,
2. value-added activities across the countries,
3. integration across borders, and
4. time.

MATHEWS introduced his three dimensions based on the resource point of view and tried to capture all strategically significant features of a firm's international expansion:¹¹⁶

1. coverage of the international sphere by the firm,
2. commitment of resources to the international sphere,
3. commitment of organizational resources to its international activities.

To sum up the process-oriented approaches of these researchers, the following **dimensions of internationalization process** can be identified:

¹¹¹ See Simon (2006), p. 28.

¹¹² For more quantitative criteria see Krystek & Zur (2002), p. 5; Siedenbiedel (2008), p. 49–51.

¹¹³ See for example Scherm & Süß (2001), p. 89; Simon (2006), p. 35; Kutschker & Schmid (2008), p. 1083.

¹¹⁴ See Johanson & Mattsson (1988), pp. 111–130.

¹¹⁵ See Kutschker & Baurle (1997), pp. 4–5.

¹¹⁶ See Mathews (2002), p. 192.

1. foreign markets entered, including the number, physical and cultural distance, economic importance etc.,
2. value-added activities involved in foreign markets,
3. organizational commitment of these international activities, including the allocation of resources and internal and external coordination.

Within each dimension, different strategies of internationalization can be applied and the degree of internationalization can be measured. The fourth dimension is time, where the timing strategy determines when to enter a new market or when to conduct certain value-added activities.

In the **first dimension**, the strategy of target market is applied to decide the markets to which a firm should extend its activities.¹¹⁷ A firm first decides the regions to enter (strategy of market presence) — for example, a Chinese firm targets the European market. Then the firm needs to select certain markets in this region (strategy of market selection) — for example a Chinese firm focuses in its first step on German, Dutch, and Belgian markets. In the end, the selected markets should be segmented according to certain criteria (strategy of market segmentation) — for example the firm sets up one subsidiary in Rotterdam for the North German, Dutch, and Belgian markets and one subsidiary in Munich for the South German market.¹¹⁸ The decision process for choosing the right target market and other strategies of internationalization will not be described in this thesis, since they are of little concern to the main research topic. The degree of internationalization needs to be measured with caution. It is generally accepted that firms with, more foreign markets or higher ratio of international sales, investment, production, or employment as a proportion of total activities have a higher degree of internationalization.¹¹⁹ However, not only the number of foreign markets, but also the importance of these markets and the cultural and physical distance to the home market need to be considered. For example, a French firm with twenty subsidiaries in Europe and North Africa is not necessarily more internationalized than a Chinese firm with ten subsidiaries in Japan, Western Europe, and North America. When considering the ratio of foreign activities, for example by foreign sales, it is necessary to evaluate whether the sales are mostly from export activities through agents or from the firm's FDI through its own sales offices established in the host country. This aspect is exactly the issue which will be dealt with in the second dimension of the process of internationalization.

In the **second dimension**, the strategies of market entry and development, which ranges from export to completely self-owned subsidiaries, are applied. As illustrated in Figure 4.8, these strategies can be divided into two categories based on whether there is equity invested abroad. For the activities in the first category — export, licensing, franchising, and contract manufacturing — the firm does not have its own capital invested abroad, which is usually called non-equity investment.¹²⁰ Within this category, there are almost no value-added activities being shifted to the foreign markets. Thus the degree of internationalization associated with these strate-

¹¹⁷ See Kutschker & Schmid (2008), p. 940.

¹¹⁸ See Schmid (2006), pp. 17–18.

¹¹⁹ Some of these criteria see for example Krystek & Zur (2002), p. 5; Siedenbiedel (2008), pp. 49–50.

¹²⁰ See UNCTAD (2006), p. 294.

gies is relatively low, even in the case of a high number of foreign markets or a high ratio of foreign sales as a proportion of total sales. One exception is export with direct investment, when representative offices are set up in host countries,¹²¹ which is usually the consequence of a growing export volume. With time, the representative office may be developed to take over more value-added activities, such as marketing, distribution, after-sales service, etc.¹²² In the second category, firms invest capital abroad either in the form of cooperation with other firms in its host countries or through a wholly foreign-owned enterprise. Three major types of second-category investment are joint venture (JV), M&A, and green-field investment. JV is a long-term stipulated cooperation of two or more firms. It can be chosen as a result of legal limitations¹²³ or to open up a market more easily. For example, Baosteel set up a JV in Italy in order to use the distribution network of the Italian JV partner.¹²⁴ Through M&A or green-field investment, firms can establish their 100% owned subsidiaries abroad. Measuring the degree of internationalization in this dimension consists of checking the extent to which the firm's value chain spans over different markets. It can be measured through value-added activities within one particular market, for example from sales to after-sales service, production, and then to procurement. It can also be measured through the overall value added abroad compared to the value added at home.¹²⁵

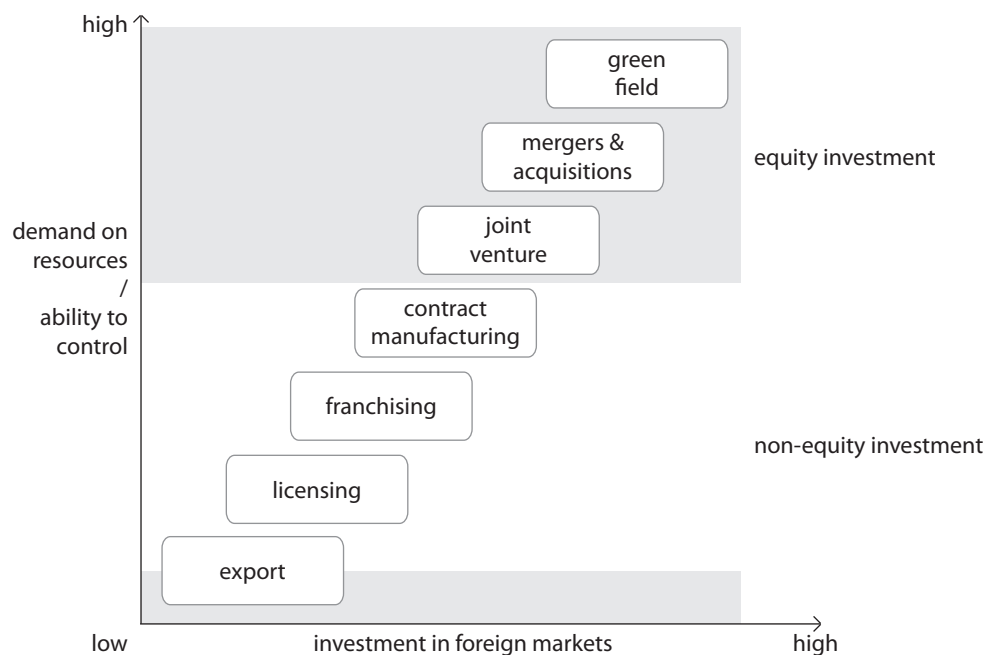


Figure 4.8: Different forms of market entry and development
(Source: Meissner & Hymer, 1980, p. 224; Perlitz, 2004, p. 186; Dülfer & Jöstingmeier, 2008, p. 129.)

The **third dimension** concerns the intangible aspects of internationalization such as organizational structures and business processes. Allocating organizational resources (strategy of

¹²¹ See Backhaus *et al.* (2003), p. 177.

¹²² See Quack (1995), p. 110.

¹²³ For example, in the sector of automotive manufacturing in China, the share of foreign capital is not allowed to exceed 49%.

¹²⁴ For details of Baosteel's internationalization, see Chapter 10.3 on page 130.

¹²⁵ See Mathews (2002), pp. 195–196.

allocation) for international activities and coordinating these activities (strategy of coordination) are the main topics in this dimension. Strategy of allocation decides on one hand the centralization or decentralization of value-added activities or decision process; on the other hand the standardization or differentiation of products, service, or marketing mix.¹²⁶ Tightly connected to the strategy of allocation is the strategy of coordination, which decides the organizational structure and business processes. The EPRG model — ethnocentric (home country orientation), polycentric (host country orientation), geocentric (world orientation), regiocentric (functional rationalization on a more-than-one country basis) — identifies the managerial orientation of MNEs and their international activities.¹²⁷ Although organizational commitment of international activities is difficult to measure, it is a very important dimension, especially for new MNEs.¹²⁸ New MNEs usually can not access capital or talent as easily or as inexpensively as European and American firms can, due to institutional voids. However, they can use local production factors to overcome the disadvantage in financial resources,¹²⁹ or use the resources of other low cost countries to achieve competitive advantages, for example, Huawei set up subsidiaries in India for software development.¹³⁰ Another possibility is expanding to developed countries to extend their own resources through linkage.

Figure 4.9 summarizes different paths of internationalization of conventional MNEs and new MNEs. In this cube of internationalization's process, new MNEs tend to concentrate more on the dimension of coverage and organizational resources, and less on the dimension of commitment through value-added activities, which is different from conventional MNEs. The reasons why new MNEs achieve competitive advantages through this path will be analyzed in detail in Chapter 7.1.1 on page 88, because the analysis is based on the theories of RBV and MBV. The purpose of analyzing the process and the degree of internationalization in this section is to offer a framework for analyzing the role of distribution management in the internationalization in Chapter 4.4, and also to offer a basis for selecting the suitable research domain for empirical research in Chapter 9.2 on page 111 and Chapter 13.2 on page 171.

4.4 Role of distribution management in internationalization

TRENT & MONCZKA present the result of a survey which shows that 95% of the surveyed CEOs identified increasing globalization as their top challenge over a three to five-year horizon. The important issue here is that 80% of them considered improving the performance of their global supply chains as a top challenge.¹³¹ In addition to international sourcing, international distribution also plays an important role in the internationalization of firms, especially the firms from emerging countries, who are trying to enter developed markets with their products or services. While entering foreign markets, a firm has to satisfy the demands of the customers

¹²⁶ See Schmid (2006), pp. 21–22; Huber (2007), pp. 25–26; Kutschker & Schmid (2008), pp. 996–1012.

¹²⁷ For more details about the EPRG model, see Perlmutter (1969), p. 10; Heenan & Perlmutter (1979); Berndt *et al.* (2005), pp. 11–13; Siedenbiedel (2008), pp. 208–212.

¹²⁸ See Mathews (2002), p. 198.

¹²⁹ See Khanna & Palepu (2006b), p. 66.

¹³⁰ See Khanna (2007), p. 67.

¹³¹ See Trent & Monczka (2003), p. 607.

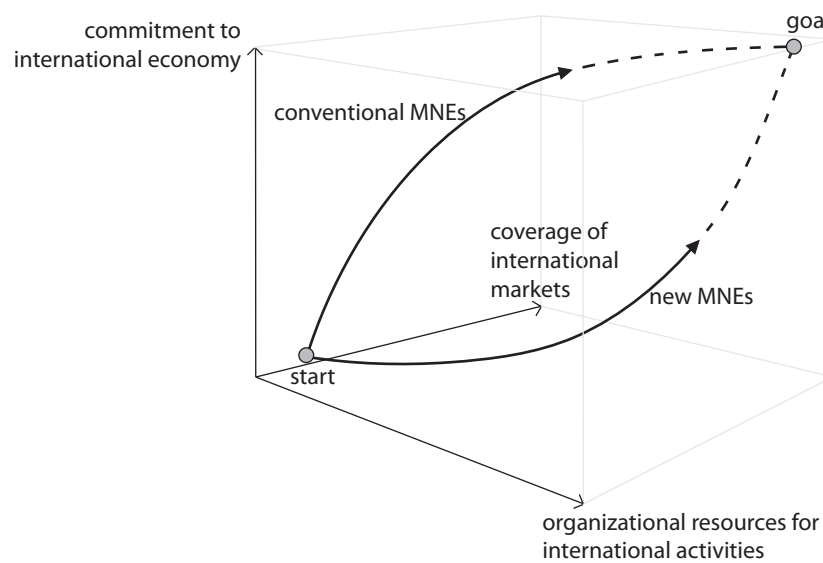


Figure 4.9: Different processes of internationalization of the conventional and new MNEs
(Source: Mathews, 2002, p. 199.)

of the new markets. Customers' demands include the desire for products, delivery, installation, maintenance, or recycling of the products, additional information about the products, etc. A demand chain encompasses the transactions which occur in order to fulfill the customers' needs, including the product and the surrounding of the product.¹³² Typically, about half the price paid for a product by a customer is spent on the activities involved in getting the product from the manufacturer to the customer, and this proportion has been increasing significantly over the past 15 years.¹³³ However, the cost of distribution is often not well understood and controlled by firms.¹³⁴

The basic function of distribution is the allocation of goods from the manufacturer to the customer,¹³⁵ but the art of distribution management is more than simply getting products from the production line to the customer. It is about reducing cost and, more importantly, creating value through distribution activities. The value-creation role of a firm's distribution and logistics has been discussed often in recent supply chain literature.¹³⁶ With the development of technology, there is less opportunity for product differentiation, and firms thus need to seek new possibilities for differentiating, for example in supply chain. Efficient distribution can create more value in the form of revenue, and it can furthermore extend its role with value-added activities. For example, postponement is a good method for reducing inventory and at the same time adding more value to the final products based on customers' orders.¹³⁷

New MNEs investing in developed markets — the research domain in this thesis — face big challenges in international distribution, for example:

¹³² See Rangan (2006), p. 23.

¹³³ See Dent (2008), p. 9.

¹³⁴ See Straube & Pfohl (2008), p. 46.

¹³⁵ The detailed functions of distribution will be described in Chapter 5.1.1 on page 41.

¹³⁶ See for example Mentzer (2004), p. 7; Pfohl (2004), 49–71; Lambert (2008), p. 2.

¹³⁷ For more discussion about postponement, see Chapter 5.3.2 on page 50.

- high complexity in the commercial and logistics systems of distribution,¹³⁸
- high expectations of customers in developed markets, not only in terms of quality of products but also services,¹³⁹
- long physical distance between the production site and sales markets,¹⁴⁰
- lack of resources, such as financial resources, know-how of new markets, experience in internationalization, etc.¹⁴¹

In the research field of internationalization, distribution is often neglected by theorists in favor of research on more “glamorous” and strategic corporate activities.¹⁴² Research about new MNEs mostly has focused on motives of internationalization or entry strategies, although distribution is actually essential for successful sales abroad. Studies on the topic of international distribution usually focus on firms from North America or Europe entering other developed or developing markets, and mostly on export-oriented businesses.¹⁴³

The description of the theories of internationalization of firms from emerging markets in this chapter offers a background for this thesis’ research object — international distribution management. The following chapter will describe the theoretical basis for international distribution management.

¹³⁸ For detailed analysis about the high complexity, see Chapter 5.3.2 on page 50.

¹³⁹ Information technology has been a major enabling factor in quick response logistics, which contributed to even higher expectation of customers. See Christopher (2007), pp. 27–28.

¹⁴⁰ New MNEs usually keep their production in the home country due to the cost advantage.

¹⁴¹ The “resources” are analyzed in Chapter 7.3 on page 99 in detail. Physical distance (geographical location) is also a kind of resource according to Barney & Clark (2007), p. 24.

¹⁴² See Czinkota & Kotabe (2000), p. 3.

¹⁴³ For example, Gabrielsson *et al.* (2002) studied multi-channel strategies in international distribution of big international computer manufacturers; Morgan-Thomas & Bridgewater (2004) analyzed the success factors in Internet-based international export channels of British firms; Katsikea *et al.* (2005) surveyed British firms about international direct sales; Wu *et al.* (2007) studied the relationship between American manufacturers and their foreign sales partners.

Chapter 5

International distribution management

Based on the analysis of the importance of distribution management in the internationalization in Chapter 4.4 on page 38, this chapter aims to build a theoretical foundation of distribution management for the purpose of this study. The first section will define key terms and give an introduction of the two subsystems of distribution. The second section will give a short overview of the commercial network of distribution and introduce the main players in a distribution channel. Since the focus of the study is set on distribution logistics and the cooperation between manufacturers and their LSPs, the third and fourth section of this chapter will provide a more detailed theoretical foundation of logistics and supply chain management in international distribution.

5.1 Fundamentals of distribution management

This section deals with the definition of distribution relevant terms, functions, and subsystems of distribution.

5.1.1 Functions of distribution management

From the macroeconomic point of view, there are three kinds of economic activities involved in the transformation of goods:¹

- production: creation of goods,
- distribution: allocation of goods, including the trading of goods between retailers and end customers, and between economic entities,
- consumption: use of goods.

¹ See [Klein-Blenkers \(1974\)](#), p. 473.

Figure 5.1 shows the position of distribution within the transformation of goods. [SPECHT & WOLFGANG](#) define **distribution** under this consideration as “all the activities that bring the authority of tangible or intangible goods physically and/or economically from one economic entity to the other”.²

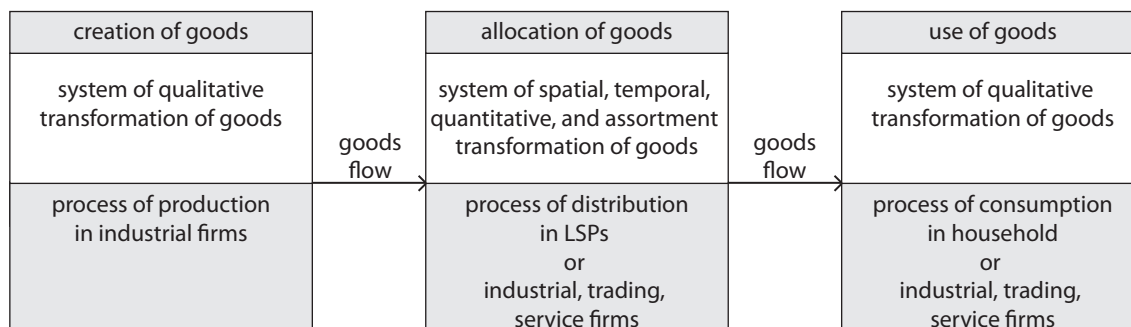


Figure 5.1: Distribution in the transformation system of goods
(Source: [Pfohl, 2010](#), p. 4. Translated and modified by the author.)

From the microeconomic point of view, distribution is considered to be a special marketing activity and is included in the marketing mix.³ The most common composition of marketing mix today is the so called “4P”: product, price, place, and promotion.⁴ Among these, “place” is understood to include distribution. It is difficult to give a simple definition of distribution,⁵ and it can be better explained through its functions. [ALDERSON](#) argues that distribution is essential for performing certain fundamental activities after the product is manufactured and before the end consumer gets the product.⁶ This means that there are certain discrepancies which hinder the consumption activity directly after the production activity, and distribution plays the role of covering these discrepancies. These discrepancies can be broadly classified into four categories:⁷

- spatial discrepancy — physical distance between the locations where a product is manufactured and where it is consumed,
- temporal discrepancy — the inevitable difference in the point of time at which a product is manufactured and when it is consumed,
- quantitative discrepancy (the need to break the bulk) — difference between the bulk quantity in production and smaller quantity in consumption,
- qualitative discrepancy (the need to provide assortment) — difference between the single product production at the manufacturer and the demand for an assortment of products of the consumers.

² [Specht & Wolfgang \(2005\)](#), p. 36, translated by the author.

³ The term “marketing mix” was introduced by [Borden \(1964\)](#) based on the description of [Culliton \(1948\)](#) about marketing manager as a “mixer of ingredients”.

⁴ See [Homburg & Krohmer \(2009\)](#), pp.13–14; [Kotler et al. \(2009\)](#), p. 25.

⁵ See [Specht & Wolfgang \(2005\)](#), p. 36.

⁶ See [Alderson \(1965\)](#).

⁷ See [Panda & Sahadev \(2006\)](#), pp. 479–484.

These functions of distribution can be regarded as essential functions, which are similar to the utilities of logistics.⁸ However, distribution has other extended functions, for example:⁹

- gathering market information,
- advertising and structuring the market,
- conducting financial transactions, and
- supporting after-sales service.

In order to perform the functions of distribution, different players need to be involved and different activities need to be carried out, therefore **distribution management** is required in order to organize, lead, plan, and control the activities and the involved players.¹⁰ The distribution management discussed here is mainly about implementing the distribution strategy in a firm. Integrated management of the whole distribution channel is still not being practiced.¹¹

5.1.2 Subsystems of distribution management

Based on its functions, distribution can be divided into two subsystems:¹²

- commercial system¹³ — the selection and structuring of a distribution channel and the different players involved, and
- logistics system — the planning and controlling of goods, information, and financial flow.

Therefore, distribution management includes the management of the commercial network and the logistics network of distribution.¹⁴

A **distribution channel** is “a set of interdependent organizations involved in the process of making a product or a service available for consumption or use.”¹⁵ The management of the commercial system of distribution is understood as the design and structuring of the legal, economical, informational, and social relationship between the players involved in a distribution channel.¹⁶ Determining the best way to design and build a distribution channel is not the

⁸ See Pfohl (2010), pp. 20–21 and the literature cited there.

⁹ See Leitherer (1974), pp. 48–49; Ross (2004), pp. 75–79; Specht & Wolfgang (2005), pp. 39–47. SPECHT & WOLFGANG, like LEITHERER, consider the functions to cover the spatial and temporal discrepancy as auxiliary functions, but the functions for assortment, bulk breaking, advertising, and marketing structuring as main functions.

¹⁰ See Specht & Wolfgang (2005), p. 49.

¹¹ The conclusion was first drawn by LAMBERT AND COOK. See Lambert & Cook (1979), p. 10. SPECHT & WOLFGANG claim that this conclusion is still valid for most firms. See Specht & Wolfgang (2005), p. 50.

¹² See Ahlert (1996), p. 15; Specht & Wolfgang (2005), p. 48; Zentes *et al.* (2010), p. 364.

¹³ The term “commercial system” is based on the author’s understanding. In some literature, it is called “distribution channel and intermediaries”. See for example Specht & Wolfgang (2005), p. 48 and Zentes *et al.* (2010), p. 364. Some see “distribution channel management” at the superior level, equal to “distribution management”. See for example Panda & Sahadev (2006). Some discuss “distribution” mostly from the logistics aspects. See for example Rushton *et al.* (2006). In order to define a clear boundary for the subsystems of distribution described in this thesis, the “commercial” and “logistics” systems are used.

¹⁴ See Panda & Sahadev (2006), p. 537.

¹⁵ Coughlan *et al.* (2006), p. 3.

¹⁶ See Specht & Wolfgang (2005), p. 48.

research object of this thesis, so in the following section only a short overview about the forms and players of a distribution channel will be given as a preparation for the discussion of inter-organizational cooperation in Chapter 5.4.2 on page 56.

Logistics is “the process of planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customers’ requirements.”¹⁷ The goal of distribution logistics is delivering the right products (the right item and the right quantity) at the right time to the right place in the right condition, with minimal cost.¹⁸ The management of logistics systems of distribution not only concerns the management of operative logistics processes, but also has strategic importance. Setting up an efficient international distribution logistics system is the focus of this research, so the theoretical fundamentals of international distribution logistics will be described in Chapter 5.3 on page 47. Chapter 5.4.2 on page 56 extends the logistics management to supply chain management with the focus of cooperation with LSP and intra-organizational management. Not all the functions of distribution described in Chapter 5.1.1 on page 41 will be discussed in the following sections, but only the functions relevant to the research object.

Although distribution management is divided into two subsystems in this thesis, and the focus is set on one of them, these two subsystems can not be fully separated.¹⁹ Instead, they form a complex system of distribution management together (see Figure 5.2).

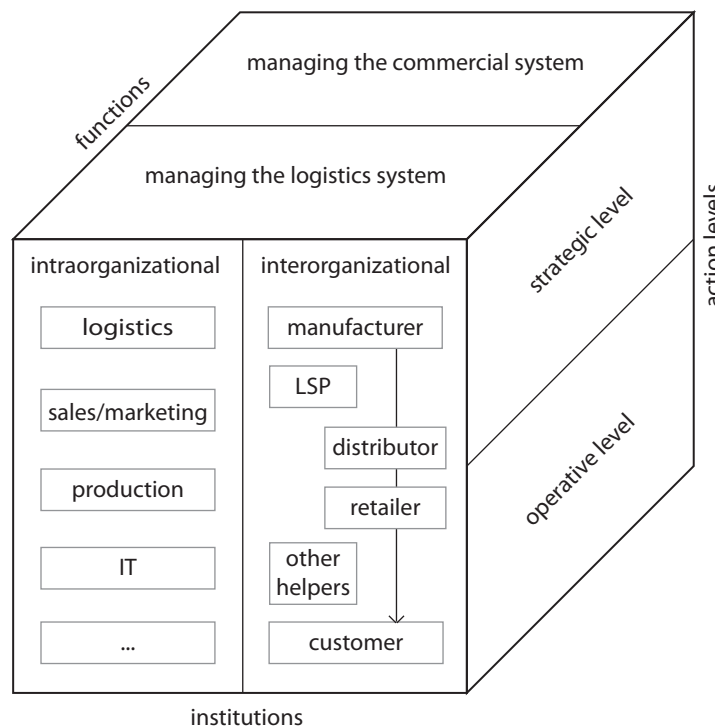


Figure 5.2: Different aspects of distribution management
(Source: Shen & Wang, 2010, p. 1320.)

¹⁷ CSCMP (1993), p.2. Cited in Pfohl (2010), p. 12. This definition is flow-oriented. For life-cycle-oriented definitions and definitions with focus on logistics as a service, see Pfohl (2010), pp. 12–14.

¹⁸ The concept of 4r is widely known as the objective of logistics. See Pfohl (2010), p. 12.

¹⁹ See Specht & Wolfgang (2005), p. 49.

5.2 Commercial system of distribution

Management of the commercial system of distribution consists of the following main tasks:²⁰

- selecting the form of the distribution channel,
- selecting the players for the distribution channel (in both vertical and horizontal dimensions),
- determining the content of the cooperation between the involved players,
- setting up and controlling the distribution channel.

There are basically two types of distribution channels — direct distribution and indirect distribution. In a direct distribution channel, the manufacturer has a direct transactional relationship with its customer. The sales activities are conducted by the manufacturer's internal functions, so the manufacturer can steer and control the distribution process all the way to the final customer.²¹ In an indirect distribution channel, there are intermediaries involved for sales and/or distribution between the manufacturer and its customer. Distributions channels can be divided into one-tier distribution and multi-tier distribution depending on the number of levels of intermediaries in a distribution channel.²² Intermediaries then have direct transactional relationship with final customers, and they can be distributors/wholesalers,²³ retailers, franchised partners, licensed dealers, etc. However, despite indirect distribution, the manufacturer can still have direct communicative relationship with final customers.²⁴ It is sometimes necessary, especially in international distribution systems, to apply multi-channel distribution due to the different conditions of markets, characteristics of products, and requirements of customers.²⁵ In addition to the intermediaries, the so-called helpers are usually also involved in a distribution channel and actually play an important role in the distribution process, such as sales agents and LSPs.²⁶ Figure 5.3 gives an overview of possible forms of distribution channels. Table 5.1 lists the main players involved and their role in a distribution channel from the point of manufacturers.²⁷

The types of players involved depend on the form of the distribution channel. The selection of the form of a distribution channel is influenced by different aspects, for example:²⁸

- characteristics of the products,

²⁰ See Zentes & Neidhart (2006), pp. 284–285.

²¹ See Dent (2008), p. 11; Liebmann *et al.* (2008), p. 414.

²² See Dent (2008), pp. 11–13.

²³ Distributor and wholesaler are usually considered to be the same. Webster's Dictionary, for example, defines a distributor as "one that markets a commodity, such as a wholesaler".

²⁴ See Zentes *et al.* (2005), p. 679.

²⁵ See Park & Keh (2003); Bradley (2005), p. 301.

²⁶ See Specht & Wolfgang (2005), p. 47; Homburg & Krohmer (2009), p. 834.

²⁷ There are also other players which can be involved in a distribution channel, for example other kinds of helpers who offer a range of services to support the distribution process. Due to new technologies, especially the development of Internet, some players have expanded their business areas, thus blurring the traditional definitions. For example, a distributor can sell directly to end consumers for private consumption, an LSP offers technical services or even financing services. See Ross (2004), p. 60; Gomm (2008), pp. 169–171. An example of an integration of distributor and LSP is the Hong Kong based firm Li & Fung, who not only is a distributor, but also provides logistics services as its core competence. See Li & Fung Group (2009).

²⁸ See Homburg & Krohmer (2009), pp. 837–839.

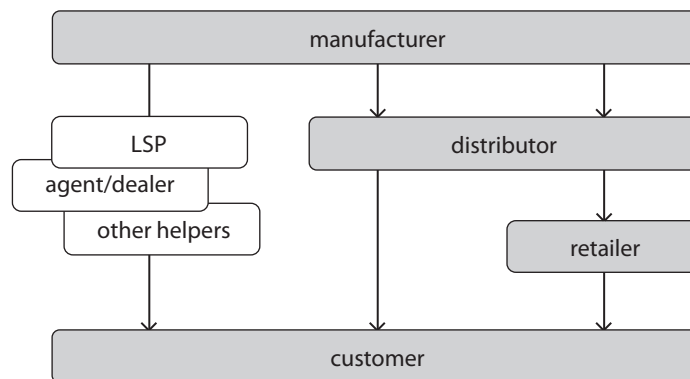


Figure 5.3: Structure of distribution channels and involved players
(Own illustration based on [Ross, 2004](#), p. 86; [Dent, 2008](#), p. 12.)

Table 5.1: Main players in distribution channels
(Own table based on [Gorchels *et al.*, 2004](#), pp. 5–8; [Specht & Wolfgang, 2005](#), pp. 66–112; [Dent, 2008](#), p. 26–125; [Homburg & Krohmer, 2009](#), pp. 830–834.)

players		description
manufacturer		Different functions of the manufacturer are involved, such as sales, marketing, logistics, production, and finance. The main functions are selecting, establishing, and controlling its distribution channel.
intermediary	distributor/ wholesaler	is a firm that purchases, stocks, and resells a wide range of products to retailers or sometimes also to end consumers. The main functions are bulk breaking, assortment, delivery, credit, technical support, etc.
	retailer	is a firm which sells products to end consumers for private consumption. It acts as the point of sale for final consumers.
helper	LSP	is a firm which offers services for the physical distribution of goods, including order processing, transport, warehousing, packaging, and other value-added services.
	agent	is a reseller who is authorized by a manufacturer to provide support to final consumers.
	dealer	is a firm which provides sales expertise in order to give the manufacturer local market coverage.

- number of customers,
- monetary value of the products,
- internal goal for efficiency,
- internal available resources, etc.

The majority of internationalized Chinese firms with FDI in developed countries sell industrial products to other firms. Only a few manufacturers of consumer goods have successfully entered the developed countries.²⁹ Most of these Chinese firms set up their sales offices abroad and adopt the form of direct distribution.³⁰ On one hand, international direct distribution has its obvious advantages, such as direct control of distribution activities and employees, quick reaction to market changes, direct contact to customers, and no negotiation process with intermediaries. On the other hand, there are also disadvantages, such as the large investment needed to build own distribution network, cultural differences, problems in human resources, high risk of loss in case of failure, and lack of know-how.³¹ However, some of the disadvantages can be overcome by involving a distribution helper — LSP.³² LSP is the main cooperation partner of a manufacturer for completing the activities in the logistics system of distribution. Some LSPs, the so called third party logistics (3PL) and fourth party logistics (4PL), can provide not only logistics services with their own network, but also value-added services to manufacturers. The following two sections will focus on the logistics activities in international distribution and the cooperation with LSPs from the perspective of supply chain management.

5.3 Logistics system of distribution

This section will first give an overview of the characteristics of distribution logistics and its subsystems. Then the special issues in international distribution logistics will be discussed.

5.3.1 Fundamentals of distribution logistics

Logistics activities concerned with distribution are called the outbound logistics of a firm — the delivery of finished goods or services to the customers from the manufacturer. Unlike procurement logistics, distribution logistics directly links the firm with its customers, and thus comprises a set of activities that complements the marketing function of a firm. The logistics system of distribution is also called “marketing logistics”,³³ which directly connects a firm to its customers. Analogous to the distribution channel illustrated in Figure 5.3, Figure 5.4 shows the

²⁹ For more detailed analysis about the Chinese investors, see Chapter 6.2.4 on page 75.

³⁰ The manufacturers of consumer goods or automobiles sell through indirect distribution channels. This is analyzed in detail in the cases in Chapter 10 on page 117.

³¹ See Hünérberg (1994), p. 298; Berndt *et al.* (1997), p. 350.

³² For example, see the international distribution of European apparel firms in Chinese market in Pfohl & Shen (2008), p. 75.

³³ The term marketing logistics was introduced first in the USA in the 1960s as an instrument of marketing policy. See Frey & Nystrom (1965), p. 33. PFOHL introduced the concept systematically in Germany shortly afterwards. See Pfohl (1972), pp. 26–55.

logistics channel in a relatively long distribution channel. In a short distribution channel, where a manufacturer distributes directly to its customer, the logistics channel can then be simplified to only have the LSP involved.

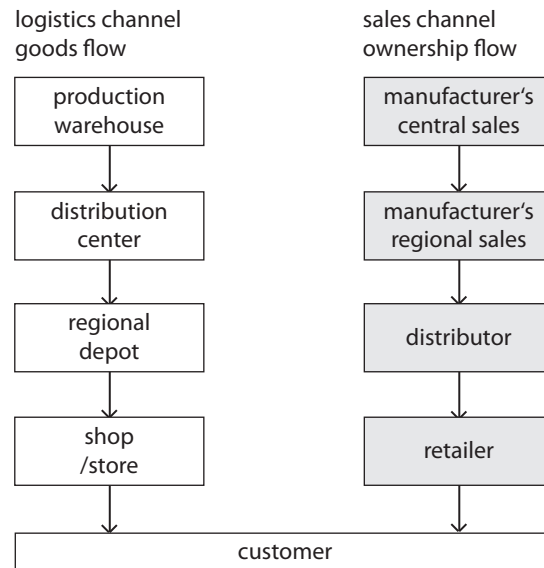


Figure 5.4: Example of a logistics channel in distribution
(Source: Pfohl, 1975, p. 289; Pfohl, 2010, p. 209.)

Excellent distribution logistics service provides the possibility to respond to fast changing requirements of customers. In a broad sense, customer service is the measure for how well a distribution logistics system is performing at providing time and place utility for a product. It also includes activities such as checking the stock, placing an order, or after-sales support for a product.³⁴ **Delivery service** is a service offered to customers in connection with selling a product and is often performed by service providers.³⁵ As illustrated in Figure 5.5, delivery service is evaluated according to four criteria: delivery time, delivery reliability, quality of delivery, and delivery flexibility.³⁶ These elements are defined as:³⁷

- Delivery time — the period of time between the order placing and the final delivery of goods.
- Delivery reliability — the probability that the order is delivered on time. To guarantee an on-time delivery, reliability of logistics processes and a high readiness to deliver are crucial. The readiness for delivery depends, among other things, on the suppliers' ability to meet the demand from their inventory.
- The quality of delivery — the accuracy and the condition of delivery. If the delivered

³⁴ Customer service can be easily mistaken for customer satisfaction which refers to the customer's rating of all elements of the marketing mix. Customers' satisfaction is an even broader concept which includes customer service. See Grant *et al.* (2006), pp. 35–36. BOWERSOX & LAHOWCHIC set three levels, starting from customer service — performance meeting a firm's internal operating standards; through customer satisfaction — performance meeting or exceeding customer expectations; to customer success — performance that facilitates customers' long-term success. See Bowersox & Lahowchic (2008), p. 83.

³⁵ See Pfohl (2010), p. 34.

³⁶ See Pfohl (1972), p. 177; LaLonde & Zinszer (1976), p. 148; Pfohl (1977), p. 241; Stock & Lambert (2001), p. 117.

³⁷ See Pfohl (2010), pp. 35–37.

quantity and type of products matches the ordered quantity and type of products, a delivery is accurate. The condition of a delivery depends for instance on the right packaging to prevent damage in transit.

- Delivery flexibility — the ability of a logistics system to react to short-term changes.

Most of these elements can be measured using a variety of different performance indicators. Delivery service and its elements are suitable for measuring and controlling a firm's overall logistics performance, especially when it comes to distribution logistics. However, in addition to a firm's goal to achieve efficient delivery service, logistics costs also have to be considered. Finally, the performance of distribution logistics will be the result of a trade-off between optimal delivery service and costs.

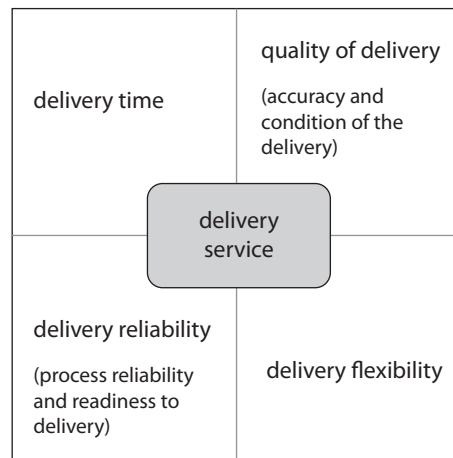


Figure 5.5: Basic elements of delivery service

Distribution logistics uses up significant resources of a firm. In the last ten years, logistics cost in European firms has accounted for about 6 – 8% of firms' turnover and it has a tendency to increase due to the growing globalization, fuel cost, demand for environmental protection, security, etc.³⁸ Observing the logistics cost at a national level, it accounts for 9.4% of the gross domestic product (GDP) in the USA and 8.5% in Germany in 2007.³⁹ In China, the logistics cost is much higher and accounts for about 18 – 20% of the GDP in the last ten years.⁴⁰ In order to make use of the low-cost advantage, most firms from emerging countries keep the production in their home countries while entering developed markets. The long physical distance between the production site and the sales markets makes distribution logistics a more critical issue. The specialty of international distribution logistics will be described in the following section.

³⁸ See [ELA & A. T. Kearney \(2009\)](#), p. 13, the result of a survey by ELA AND A. T. KEARNEY, which took place in 2008 and 2009 in 18 European countries.

³⁹ See [Klaus & Kille \(2008\)](#), p. 153.

⁴⁰ See data from [Anonymous \(2010a\)](#). There are hardly any official statistics or academic publications about logistics cost on the firm level in China. The main reason is that the concept of logistics has only been developed in China in the last ten years. Logistics cost components are not sufficiently standardized either in the real world or in the scientific field. It is therefore not only difficult to conduct such a survey, but also the accuracy of the result is uncertain. Unofficial data shows that in Chinese industrial firms, the logistics cost accounts for about 40% of the total cost, which is much higher than the 7% in Europe. See [Straube & Pfohl \(2008\)](#), p. 47; [Wang \(2010\)](#).

5.3.2 Specialty of international distribution logistics

PFOHL defines **international logistics** as the planning, realization, and control of cross border goods and information flows.⁴¹ From the institutional point of view, a special characteristic of international logistics is the great variety of involved internal and external players.⁴² In addition to the institutional complexity, international logistics has higher complexity of goods, logistics transformation, transaction processes,⁴³ and information processes⁴⁴:

- Complexity of goods: the variety of goods may increase and the value of the goods may vary in the cross-border process.⁴⁵ Important issues for logistics include the measures for weight, volume, and packaging, etc.
- Complexity of logistics transformation: the longer transport distance and lead time in cross border goods movement may cause higher safety stock, more warehouses, complex intermodal transport, etc.⁴⁶
- Complexity in transaction processes: difference in market demand for products and logistics service level⁴⁷ and difference in legal issues, administration, technology, infrastructure, and culture may cause higher costs.⁴⁸
- Institutional complexity: more institutions are involved in the transformation and transaction.⁴⁹
- Complexity of information processes: all other sources of increased complexity can be reflected in the information processes. Information and communication systems, especially documentary flows, become more important.⁵⁰

Concerning the structure of international distribution, PICARD identifies four basic systems, illustrated in Figure 5.6:

- In a direct system (a), products are delivered directly from the manufacturer to its customers in one foreign market.
- In a classical distribution center (DC) system (b), local subsidiaries manage their own DCs and deliver to their customers.

⁴¹ See Pfohl (2010), p. 337. For a similar definition, see also Bloech (1997), p. 555. For other definitions see, for example Arnold (1989), p. 1341 and Piontek (1994), p. 16. The definitions of ARNOLD and PIONTEK focus on logistics activities and processes through international firms, which are not exact, because international firms have logistics activities within a country or region as well. This thesis follows the definition of PFOHL.

⁴² See Schieck (2008), p. 44.

⁴³ Transaction process is understood as the framework for logistics transformation, for example market demand, legal, administrative, or cultural framework. See Schieck (2008), pp. 70–71.

⁴⁴ See Schieck (2008), pp. 71–73.

⁴⁵ See Braithwaite & Christopher (1991), p. 55; Bowersox & Closs (1996), p. 158; Wood *et al.* (2002), p. 4.

⁴⁶ See Bowersox & Closs (1996), p. 158.

⁴⁷ See Flaherty (1996), p. 281.

⁴⁸ For more details about the frameworks of international logistics, see for example Wood *et al.* (2002), p. 4; Zentes *et al.* (2004), p. 469; Pfohl (2010), pp. 340–342.

⁴⁹ See Pfohl (2010), p. 340.

⁵⁰ See Bowersox & Closs (1996), p. 158; Pfohl (2010), p. 339.

- In a transit DC system (c), a DC is managed by the parent firm or regional headquarters for one foreign market. A typical example is cross-docking and such a DC is usually operated by an LSP.
- In a multiple country DC system (d), one DC is used for different countries in one region, for example for all the customers in Western Europe.⁵¹

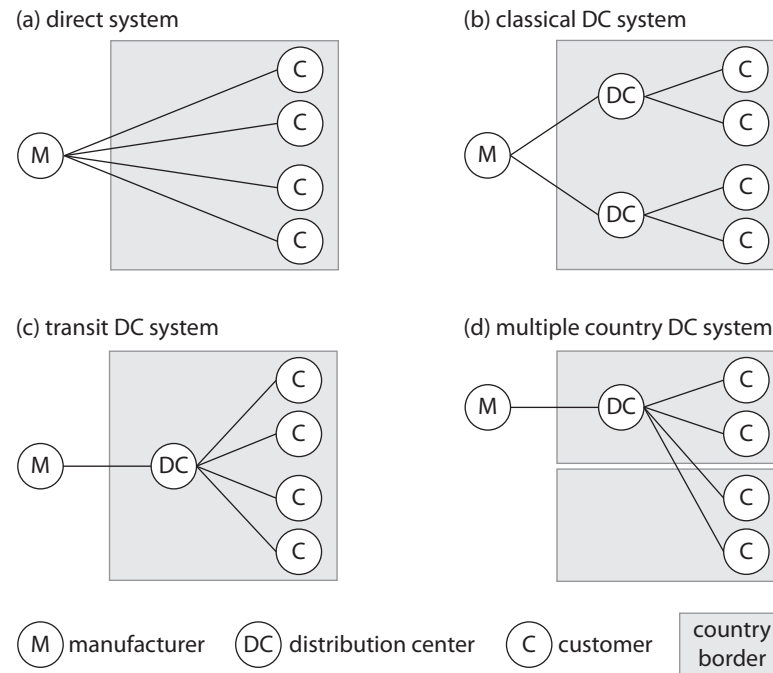


Figure 5.6: Four basic structures of international distribution
(Own illustration based on [Ross, 2004](#), pp. 708–709; [Skjott-Larsen et al., 2007](#), pp. 133–134.)

A trend in distribution, especially in international distribution, is the search for **postponement** opportunities.⁵² The idea of postponement is to delay the final configuration or form of the product until the last possible moment. Different types of postponement include the postponement of production, assembly, inventory, packaging, or labeling.⁵³ The postponed activities are often conducted in DCs in the foreign market either by the manufacturer itself or by other service providers. Closely connected to postponement is the concept of **customization**, which uses value-added services to create a user-specific product or service.⁵⁴

5.3.3 Functional subsystems of international distribution logistics

From the functional point of view, [PFOHL](#) divides logistics systems into five subsystems — order processing, inventory management, warehouse, transport, and packaging.⁵⁵ This section will

⁵¹ See [Skjott-Larsen et al. \(2007\)](#), p. 134.

⁵² See [Christopher \(2007\)](#), p. 27. The concept of postponement was initially popularized by [ALDERSON](#).

⁵³ For detailed analysis, see [Pfohl \(2004\)](#), pp. 123–126; [Zinn & Bowersox \(1988\)](#), pp. 123–133. [BOWERSOX & CLOSS](#) classify postponement into logistics postponement and form postponement.

⁵⁴ See [Bowersox & Lahowchic \(2008\)](#), pp. 160–161. The application of postponement and customization in the automotive sector will be discussed in Chapter 10.5 on page 140.

⁵⁵ See [Pfohl \(2010\)](#), p. 69.

give an overview of the first four subsystems and their specialties in international logistics.⁵⁶

Order processing generally includes a system for receiving orders from customers, checking the status of an order, communicating with customers, filling an order, and finally making it available to the customer. Checking of inventory status or invoicing can also be included. Order processing is a key logistics area, because it can have a huge impact on customers' perception of service and therefore satisfaction.⁵⁷ Order processing is usually highly automated unless turnover and volume of orders and goods are low or the process has to be very flexible because exceptions need to be handled.⁵⁸

Inventory acts as a buffer between input and output goods flows. The lean concept expanded into distribution systems in the 1980s, and is defined as minimizing waste in the downstream supply chain, while making the right product available to the end customer at the right time and location.⁵⁹ However, lean distribution does not simply mean no-stock distribution, especially in the case of international distribution, because the delivery time demanded by customers is usually shorter than the actual production time plus transit time, which means that necessary stock can not be avoided. Lean approach follows the “pull” principle, which means the replenishment is based on the actual demand or consumption.⁶⁰ In contrast to lean distribution, the distribution requirements planning (DRP) approach follows the “push” principle, which is based on distribution forecast, inventories, and planning parameters.⁶¹ Figure 5.7 shows the difference between lean and DRP. In international distribution, especially when the production site is far away from the sales markets, both approaches should be applied simultaneously to reduce inventory and to improve delivery service.

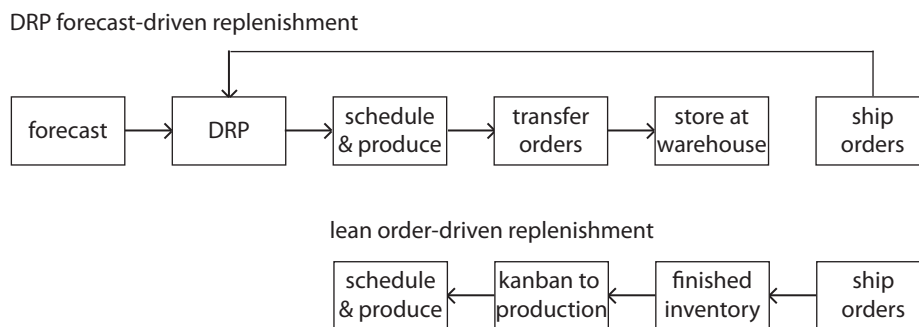


Figure 5.7: Difference between lean and DRP approaches
(Source: Zylstra, 2006, p. 90.)

Warehouses act as nodes within a logistics network, where means of transportation is changed or shipments are consolidated or split up.⁶² Although lean distribution has been the goal of many

⁵⁶ The subsystem “packaging” will not be discussed, because it is of little concern to the case study of Chinese firms in Part III and Part IV.

⁵⁷ See Grant *et al.* (2006), p. 18.

⁵⁸ See Pfohl (2010), pp. 78–79.

⁵⁹ See Reichhart & Holweg (2007), p. 3701–3702. Lean distribution has often been covered under the “quick response” initiative, see Lowson *et al.* (1999), or often discussed together with agile supply chain in literature, see Christopher (2000).

⁶⁰ See Zylstra (2006), pp. 86–87.

⁶¹ See Stock & Lambert (2001), p. 303.

⁶² See Pfohl (2010), p. 112.

manufacturers, storage can not be completely avoided in international distribution.⁶³ However, warehouse does not just have the function of storage, but also other functions. Especially in international distribution with long distance, in order to reduce transportation costs, goods are transported in big volume in the main haul. Warehouses before and after the main haul are then necessary as consolidation and dispatching points. A warehouse in the sales market is usually served as a distribution center, where goods go through the picking and packing process according to customers' requirement and are delivered to the customers with shorter lead time. Moreover, such a warehouse is also the place where postponement activities usually take place. It might also be necessary for returned goods or spare parts.⁶⁴

Structure and locations of warehouses are two important issues in international distribution.⁶⁵ Structure of warehouses in international distribution can be illustrated in two dimensions — the vertical dimension, which is the number of warehouses levels, and the horizontal dimension, which is the number of warehouses on each level.⁶⁶ The location of a warehouse depends on a range of influential factors, such as locations of the customers, infrastructure, cost of renting or setting up a warehouse, personal cost, tax, etc.⁶⁷ However, warehouse management is often completely outsourced to LSPs and sometimes even including value-added services, for example for the postponed labeling or assembly.

Transport is a key logistics activity, which moves goods from their point of origin to the point of consumption. Each transport system consists of goods to be transported, the particular means of transport, and the process of transport.⁶⁸ In order to have the most favorable transport means and process, it is necessary to set up a proper transport chain, which involves the selection of the form and mode of transport, definition of the shipping routes, compliance with transport regulations, and the selection of carriers.⁶⁹ Transport cost is usually the largest cost among logistics activities and can account for a significant portion of the selling price.⁷⁰

International transport is usually characterized by longer distances, a longer lead time, and a more complex intermodal transport chain compared to national transport. It is influenced by the high complexity in logistics transformation, involved institutions, and information processes.⁷¹ The change of transport means causes extra handling costs, so the proportion of international transportation cost in sales is even higher. Apart from incurring a higher cost, international distribution also makes fast, responsive, and dependable transport more difficult. Issues such as transport capacity constraints and increased transport security threaten to lengthen transit time, create more frequent and unpredictable delays, and raise transport costs.⁷²

⁶³ Just in time (JIT) delivery without storage in a warehouse is possible in international distribution, for example from Turkey to Germany. The only inventory is in the means of transport on the transit way.

⁶⁴ For functions of warehouse in a global supply chain see [Speh \(2007\)](#), pp. 230–231.

⁶⁵ See [Zentes et al. \(2010\)](#), p. 371.

⁶⁶ See [Zentes et al. \(2004\)](#), p. 482.

⁶⁷ See [Pfohl \(2010\)](#), pp. 116–117.

⁶⁸ See [Pfohl \(2010\)](#), p. 149.

⁶⁹ See [Pfohl \(2010\)](#), pp. 150–153.

⁷⁰ See [Grant et al. \(2006\)](#), p. 200.

⁷¹ See [Schieck \(2008\)](#), p. 84.

⁷² See [Goldsby et al. \(2007\)](#), p. 214.

The most common international transport means between Asia and Europe is sea or air transport. For example, around 90% of China's total foreign trade is carried out via sea transport.⁷³ Air transport is used for small volume but high value goods. However, air transport is often used by firms from emerging market to cover the disadvantage of long distance between production site and sales market in order to compete against local competitors.⁷⁴ A further variation of transport means between Asia and Europe is the combined sea-air transport. For example, the transit time of combined sea-air transport from China via Dubai to Europe is about 14 – 16 days and the cost is 30 – 40% lower than air freight.⁷⁵ An overland transport between Asia and Europe through the transsiberian railroad is still under development, which would be a solution between sea and air transport in the future.⁷⁶ Another railway connection — starting from Chongqing in Sichuan Province in China through the North Xinjiang Railway, over the Chinese border Alashankou to Kazakhstan, and then through Russia, Belarus, Poland, and ultimately arriving at Duisburg in Germany — has started running and the entire transport time is about 13 days.⁷⁷ Such transport activities are commonly outsourced to LSPs.⁷⁸

5.4 Cooperation in the context of SCM

A firm extends its value chain by setting up a distribution network in foreign markets. After discussing the activities in a logistics system of international distribution in the last section, this section will analyze cooperation with LSPs based on the concept of supply chain management (SCM). In the context of SCM, the business processes include not only the value chain in a firm — intra-organizational process, but also the value chain along the connected firms in this network — inter-organizational process.⁷⁹

5.4.1 Characteristics of SCM

The term SCM first appeared in the 1980s in the works of OLIVER & WEBBER. It was originally used to designate the new form of strategic logistics management, above the level of physical distribution.⁸⁰ In the SCM context, logistics was facing particular challenges, such as global coordination of product and service flows and increased expectations for just in time (JIT) delivery.⁸¹ The focus was set on logistics solutions across the entire supply chain within a single

⁷³ See Leutner (2005), p. 219.

⁷⁴ For a detailed analysis see the case study in Chapter 10.1.3 on page 120.

⁷⁵ The cost depends on the current air freight market situation. See Pfohl & Shen (2008), p. 52.

⁷⁶ For more information about the railway transport between Europe and Asia see Nowosad & Rodig (2008).

⁷⁷ See China Daily (2010). The main motivation of this transport route is that Chongqing is becoming one of Asia's largest notebook computer production base with an current annual output of 80 million notebooks. A large number of these products will be continuously transported to the European market.

⁷⁸ Outsourcing of logistics activities to LSPs will be analyzed in Chapter 5.4.2 on page 56.

⁷⁹ For the terms of intra-organizational and inter-organizational logistics see Pfohl (2010), p. 231.

⁸⁰ See Oliver & Webber (1982).

⁸¹ See for example Tan (2001), pp. 43–44.

organization and across its boundaries.⁸² Often, logistics and SCM are used as synonyms,⁸³ but some see SCM as an extended development beyond logistics.⁸⁴ In the early 20th century, the so-called systems thinking arose, which had an impact on the development of systems theory.⁸⁵ When the theory is applied to an organization, it shows that in order to ensure an efficient and effective management of the overall organizational system, it is necessary to have a holistic perspective on the elements of which it is composed, and to understand the relation between these elements.⁸⁶ In contrast to the classical perspective of physical distribution, SCM emphasizes the integration of all these elements.⁸⁷ In this thesis, there is no strict differentiation between the two terms — logistics and SCM.⁸⁸ The goal is to use the theoretical fundamentals of logistics and SCM to study international distribution logistics of firms from emerging countries and their cooperation with LSPs.

Many researchers and institutes tried to give a definition of SCM.⁸⁹ In general, most definitions of SCM emphasize two aspects — the flows between the firms and the integration of these firms.⁹⁰ With the focus on **flows**, [HANDFIELD & NICHOLS](#) define supply chain as “all activities associated with the flow and transformation of goods from the raw materials stage, through to the end user, as well as the associated information flows”. Accordingly SCM is defined as “the integration of these activities through improved supply chain relationships, to achieve a sustainable competitive advantage”.⁹¹ A number of flows within a supply chain have been mentioned in literature.⁹² [PFOHL](#) defines four flows: goods, information, financial resource, and ownership flow.⁹³ Although flow-orientation is also characteristic of logistics, SCM includes not only the logistics channel for the flows of goods, services, and logistics information, but also the sourcing and distribution channel for the flows of ownership, financial resources, and other information for sourcing and distribution.⁹⁴ Figure 5.8 gives an overview of the flows of SCM.

In terms of **integration**, [MENTZER *et al.*](#) define supply chain as “a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer”.⁹⁵ [COOPER *et al.*](#) define SCM as “the integration of business processes from end user through original suppliers that provides products, services, and information that add value for customers”.⁹⁶ Since SCM is

⁸² See for example [Rushton *et al.* \(2006\)](#), p. 9.

⁸³ For example, [TAN *et al.*](#) describe an evolution to “integrated logistics”, which is referred to as SCM. See [Tan *et al.* \(1998\)](#), p. 2. See also [Gammelgaard & Larson \(2001\)](#), pp. 33–34; [Svensson \(2002\)](#).

⁸⁴ For example, [STANK *et al.*](#) write “supply chain management encompasses a scope of activity that is much greater than simply an extension of logistics”. See [Stank *et al.* \(2005\)](#), p. 37

⁸⁵ See [von Bertalanffy \(1972\)](#), p. 410.

⁸⁶ See [Grant *et al.* \(2006\)](#), p. 9.

⁸⁷ See [Houlihan \(1985\)](#), p. 55.

⁸⁸ For a classification of the four different relations of logistics and SCM see [Larson & Halldorsson \(2004\)](#), pp. 19–21.

⁸⁹ For a list of definitions of SCM see, for example, [Gomm \(2008\)](#), pp. 31–43; [Wolf \(2008a\)](#), pp. 11–13.

⁹⁰ See [Bagchi *et al.* \(2005\)](#), p. 277.

⁹¹ [Handfield & Nichols \(1999\)](#), p. 2.

⁹² For a literature list about the flows in supply chain, see [Gomm \(2008\)](#), pp. 38–41.

⁹³ See [Pfohl \(2000\)](#), p. 6.

⁹⁴ See [Pfohl \(2004\)](#), pp. 168–169.

⁹⁵ [Mentzer *et al.* \(2001\)](#), p. 4.

⁹⁶ [Cooper *et al.* \(1997\)](#), p. 2.

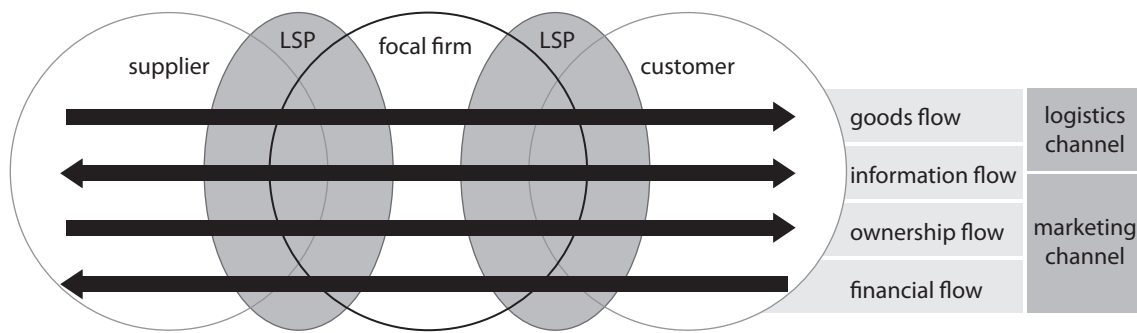


Figure 5.8: Different flows in a supply chain
(Own illustration based on Pfohl, 2000, p. 6; Gomm, 2008, p. 41.)

an interdisciplinary management concept⁹⁷ along the whole supply chain, integration in supply chain means not only the collaboration between involved players in a supply chain, but also the cooperation of different functions within a firm. The following two sections will discuss inter-organizational and intra-organizational integration.

5.4.2 Managing inter-organizational integration

A supply chain should be viewed as a network and firms need to gain network competence in supply chains, which can either mean expanding on a firm's own resource basis or obtaining special resources through the network.⁹⁸ Therefore, distribution activities should be considered as a whole system and the utilization of resources within this system should be optimized through the network. Network relationships play a particularly important role for firms who are entering and managing a market with great psychical distance.⁹⁹ Moreover, the lean approach described in Chapter 5.3.3 on page 51 also needs cooperation between firms in a supply chain.

There are different kinds of relationships in a network. Figure 5.9 illustrates four possible patterns of relationship based on the level of behavioral uncertainty and the level of dependency:¹⁰⁰

- Strategic collaboration describes the situation of regular service exchange, especially highly specialized services. Both cooperation partners have a “win-win” situation as the goal.
- Tactical collaboration focuses on improvement of processes and service quality. It has a lower level of dependency and the cooperation partner can be changed relatively easily.
- Opportunistic behavior may occur in a cooperation in which one party betters its position through the relationship at the cost of the other.
- Traditional/adversarial behavior has no long-term plans to build a cooperation. It can be, for example, short term procurement based on price.

⁹⁷ Pfohl (2000), p. 6.

⁹⁸ See Pfohl & Trumppheller (2004), pp. 4–5.

⁹⁹ For an example, see Ojala (2009), p. 50. The research is focused on knowledge-intensive SMEs.

¹⁰⁰ See Pfohl (2004), p. 358.

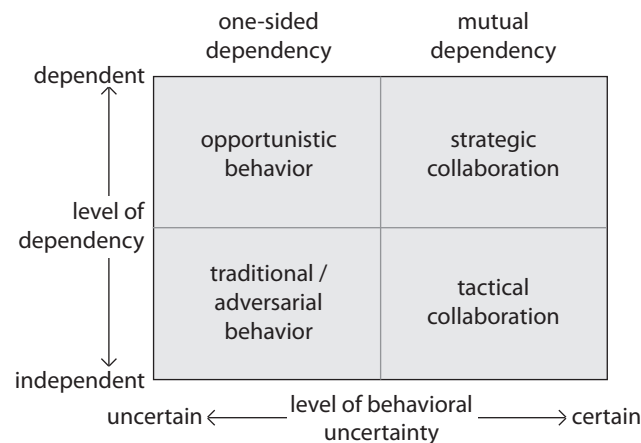


Figure 5.9: Patterns of inter-organizational relationship
(Source: Cousins, 2002, p. 78.)

Globalization of the marketplace has led to a rapid growth in global logistics. As firms enter international markets, they may want to turn to one or more global LSPs, who provide logistics service globally.¹⁰¹ This makes LSPs an unavoidable and strategic partner in a global supply chain, especially for a lean supply chain with a JIT logistics process.¹⁰² The rest of this subsection will focus on the relationship between manufacturers and their LSPs.

Cooperation with LSPs

Outsourcing logistics services is an ongoing trend in industry.¹⁰³ There are several levels of outsourcing logistics activities or other related activities:¹⁰⁴

- Outsourcing conventional logistics activities such as transport, warehousing, or packaging individually to freight forwarders, carriers, warehouse operators, or packaging firms. Regardless of whether it is a short-term or long-term cooperation, the integration of these logistics activities into the whole supply chain remains in the shipper's¹⁰⁵ own hands.
- Outsourcing logistics activities to one or several LSPs, who provide a service package including planning, implementation, and controlling the logistics processes.
- Outsourcing not only the conventional logistics activities, but also other value-added activities such as customs clearance, simple assembly, merchandising, etc.
- Having the LSP develop a supply chain coordination strategy in concert with the shipper, and manage the complete cycle of supply chain activities.

There are different kinds of LSPs based on the activities they take over. “LSP” is an umbrella term for firms who perform outsourced logistics activities on behalf of a customer.¹⁰⁶ Different

¹⁰¹ See Lynch *et al.* (2007), p. 385.

¹⁰² See Krüger (2004), pp. 126–133.

¹⁰³ See Straube & Pfohl (2008), p. 24.

¹⁰⁴ For examples, see Sanders & Locke (2005), pp. 40–41; Rushton & Walker (2007), pp. 105–135; Schieck (2008), pp. 432–433.

¹⁰⁵ Shipper is used in this section to refer to firms who outsource their logistics activities to LSPs.

¹⁰⁶ For a definition of an LSP see for example Rushton & Walker (2007), p. 4.

forms of LSPs include carriers, freight forwarders, and 3PLs. A carrier is responsible for the physical transportation of goods from A to B according to contract of carriage.¹⁰⁷ A freight forwarder is an international trade specialist who offers a variety of services to facilitate the movement of international shipments.¹⁰⁸ A 3PL is an external provider who manages the outsourced logistics or other value-added activities in the long-term on behalf of its customers, and supports their business processes.¹⁰⁹ Some 3PLs are more developed in order to provide their customers with a full range of supply chain services on a strategic level. The service package that a 3PL offers, called contract logistics, fulfills the individual demands of its customer.¹¹⁰ Figure 5.10 illustrates the evolution of LSPs from a traditional logistics firm, through the 3PL model, to a full orchestrator of supply chain services. Some surveys show that most shippers indicate that a closer strategic relationship with 3PLs would increase their operational flexibility and help them become more demand-driven, as well as reduce capital costs, human resource cost, and operational expenses.¹¹¹

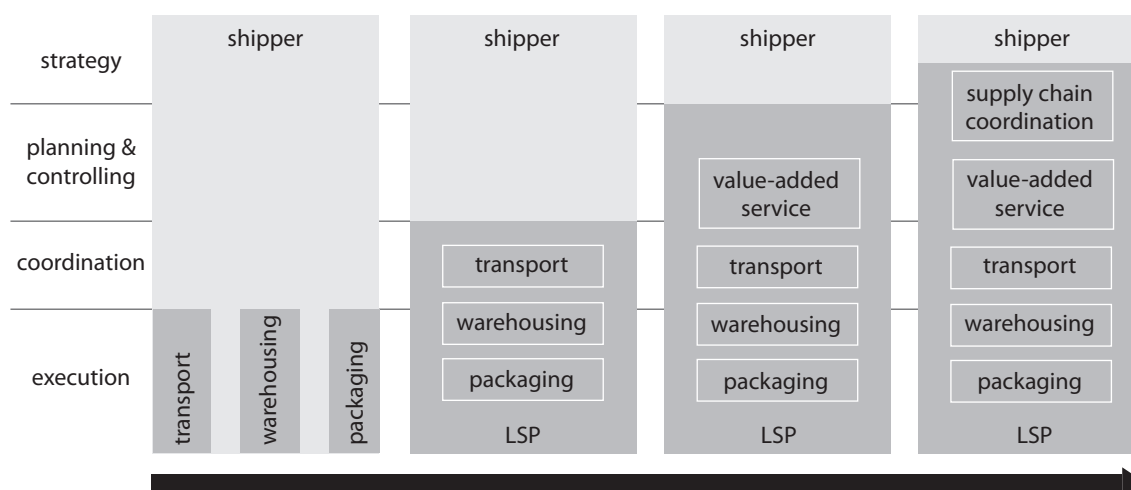


Figure 5.10: Different levels of logistics outsourcing to LSPs

(Own illustration based on [Anonymous, 2009c](#), p. 34. Transport, warehousing, and packaging are only three examples of basic commonly outsourced logistics activities.)

The next important issue is choosing the right LSP. There is a list of criteria for choosing LSPs, such as price, reliability, flexibility, innovation ability, network coverage, information technology (IT) system, sector-specialized services, value-added services, etc.¹¹² One important criterion, especially for the firms from emerging countries, is the power position of the LSPs.¹¹³ SHAWDON claims that MNEs do not usually use the concept of one-stop shopping, which is what big logistics firms such as DHL and Schenker try to offer through mergers and acquisitions.¹¹⁴ The reason is that MNEs do not want to be too dependent on one service provider. A multiple sourcing

¹⁰⁷ See §407 HGB.

¹⁰⁸ See [Murphy et al. \(1992\)](#) and [Murphy & Daley \(2001\)](#).

¹⁰⁹ See [Rushton & Walker \(2007\)](#), p. 5.

¹¹⁰ See [Klaus & Kille \(2008\)](#), p. 115. A 3PL can offer a wide range of services. For a list of possible services, see [Pfohl \(2010\)](#), p. 261.

¹¹¹ See [Anonymous \(2009c\)](#), p. 33.

¹¹² See [Pfohl & Schäfer \(1998\)](#), p. 86; [ELA & Arthur D. Little \(2007\)](#), p. 12.

¹¹³ For the nature and definition of power, see [Emerson \(1962\)](#).

¹¹⁴ See [Shawdon \(2006\)](#), p. 6.

strategy also encourages the suppliers to improve their service. In a distribution channel, it is assumed that the level of coordination can be high only in channels where there exists a strong channel principal with adequate resources.¹¹⁵ When new MNEs enter developed markets, they usually lack resources and sales volume to be the powerful partner in a relationship. Therefore, for example, when Chinese manufacturing firms enter Europe, they tend to look for medium-sized LSPs for the distribution in Europe. One of the reasons for this is that they want to have partners with a similar position of power in the relationship, in order to achieve a better cooperation.¹¹⁶ Even the biggest MNEs still use medium-sized or niche logistics providers who only cover a limited area or offer a limited range of services.¹¹⁷

However, to ensure a successful cooperation, it is not only important to outsource the adequate activities and choose the right LSPs, but also to manage and control the cooperation.

Managing the cooperation

Controlling is an important regulating and coordination concept for supporting management.¹¹⁸ There are qualitative and quantitative controlling instruments, and choosing the suitable instruments depends on a firm's strategic goal.¹¹⁹ **Logistics controlling** refers to carrying out controlling tasks in the logistics function of a firm.¹²⁰ In the context of supply chain, the concept of supply chain controlling has also been intensively discussed, but so far not many firms have implemented such a controlling instrument.¹²¹ One difficulty is that the content and tasks of supply chain controlling are very different.¹²² Moreover, it is clear that supply chain controlling extends logistics controlling by expanding the scope from intra-organizational to inter-organizational issues.¹²³ Therefore it is necessary to establish a **common language** for all partners in a supply chain.¹²⁴ This common language is often "translated" into key performance indicators (KPIs), which need to be defined and understood correctly by all the partners.

A variety of performance indicators for SCM have been published in the literature. FISHER categorizes supply chains into either efficient or responsive supply chains.¹²⁵ CHRISTOPHER & TOWILL make a similar distinction into lean and agile.¹²⁶ Strong partnership in a cooperation forms the basis of SCM. Some KPIs for the evaluation of the partnership are, for example, the level and degree of information sharing,¹²⁷ the extent of mutual cooperation in cost cutting,¹²⁸

¹¹⁵ See Panda & Sahadev (2006), p. 586.

¹¹⁶ See Arndt (2006), p. 9. This statement is analyzed using the cases of Chinese firms in Chapter 11 on page 145.

¹¹⁷ See Shawdon (2006), p. 7.

¹¹⁸ See Pfohl & Stölzle (1997), p. 27.

¹¹⁹ See Küpper (2001), p. 150; Horváth (2008), p. 142.

¹²⁰ See Pfohl (2004), p. 201.

¹²¹ See Göpfert & Neher (2002), p. 38.

¹²² See Göpfert & Neher (2002), p. 34.

¹²³ See Pfohl (2004), p. 203.

¹²⁴ See Göpfert & Neher (2002), p. 41; Weber (2002), p. 186.

¹²⁵ See Fisher (1997), pp. 108–109.

¹²⁶ See Christopher & Towill (2002), p. 3.

¹²⁷ See Mason-Jones & Towill (1997).

¹²⁸ See Thomas & Griffin (1996), p. 1.

quality improvement,¹²⁹ or problem solving.¹³⁰ KPIs for the evaluation of LSPs depend on the services they provide. PFOHL & ZÖLLNER define performance measures in the overall logistics system, logistics administration, and four subsystems of logistics — transport, warehousing, inventory management, and order processing.¹³¹ FROSCHMAYER & GÖPFERT introduce the concept of a logistics balance sheet for evaluating the success of a firm's logistics system.¹³² LSPs can also be differentiated based on the characteristics of customer relationship,¹³³ customer satisfaction, and customer loyalty.¹³⁴ In the practice of the logistics sector, the service level agreement (SLA)-method is increasingly being applied as an instrument for controlling,¹³⁵ and KPIs are used as the basis for service level reporting.¹³⁶

In the international distribution, cross-cultural differences play a role not only in the initial stage of setting up a cooperation, but also throughout the whole management process.¹³⁷ It is therefore important that manufacturers, who are establishing a relationship with foreign channel partners, understand and appreciate the cultural differences.¹³⁸ Cultural differences between countries or regions can be split into two levels: the comprehensible and observable level — behavior patterns and artifacts; and the deeper and not always observable level — basic assumptions, values, standards, justifications, and beliefs.¹³⁹ HALL makes a distinction between high- and low-context cultures, and how this matter of context impacts communications.¹⁴⁰ In low-context culture, for example the USA or most European countries, most information is contained in explicit words. On the contrary, in high-context culture, for example China, information is either in the physical context or internalized in the person with little communicated in explicit words.¹⁴¹

5.4.3 Managing intra-organizational integration

In the context of a firm, logistics is a function which is related to other functions in the firm. As illustrated in Figure 5.2 on page 44, the distribution logistics function needs to work together intensively with marketing/sales, production, IT, R&D, customer service, etc.¹⁴² The conflicts between a firm's functions have been discussed by various authors.¹⁴³ Conflicts are especially common when a firm wants to extend the lean approach from production to distribution, for example, the conflict between the cost of manufacturing flexibility versus the fast response to

¹²⁹ See Graham *et al.* (1994).

¹³⁰ See Maloni & Benton (1997).

¹³¹ See Pfohl & Zöllner (1991), pp. 327–333. For some changes and improvement, see Pfohl (2004), pp. 210–220. For a similar approach, see Mentzer & Konrad (1991), pp. 40–44.

¹³² See Froschmayer & Göpfert (2010), pp. 96–129.

¹³³ See Knemeyer *et al.* (2003).

¹³⁴ See Stank *et al.* (2003).

¹³⁵ See Gillies (2006), pp. 66–67.

¹³⁶ See Schietinger (2007), p. 25.

¹³⁷ See Keegan *et al.* (2002), p. 535.

¹³⁸ See Gorchels *et al.* (2004), p. 114–115.

¹³⁹ See Kutschker & Schmid (2008), pp. 773.

¹⁴⁰ See Hall (1976), pp. 105–116.

¹⁴¹ See Moran *et al.* (2007), pp. 49–50.

¹⁴² For interfaces between logistics and R&D, production, procurement, and sales see Pfohl (2004), pp. 144–180.

¹⁴³ See, for example, Shapiro (1977); Karmarkar (1996); Malhotra & Sharma (2002).

the customers' changing demands. The main reason for the conflict are the different goals of the functional departments — cost in the manufacturing department, cost and delivery service in the logistics department, and revenue in the sales department.¹⁴⁴ Without a coordinated internal integration, this may lead to “islands of excellence”, but not to an efficient value chain.¹⁴⁵ With MNEs, more coordination is needed for cooperation, not only between functions, but also between foreign subsidiaries and central functions.¹⁴⁶

MIN defines **inter-functional coordination** as working together in close relationships across functions or departments to achieve common firm goals.¹⁴⁷ Inter-functional coordination requires both interaction and collaboration to achieve high performance.¹⁴⁸ In order to ensure interaction and collaboration, an organizational climate which supports both of them is required.¹⁴⁹ There are five mechanisms which firms can use to improve inter-functional coordination:

- Organizational structure. Since SCM needs process integration from procurement to manufacturing and distribution within a firm and across the firms in a supply chain,¹⁵⁰ the organization should be designed to go beyond a functional structure.¹⁵¹ The firm can either redesign the organizational structure based on integrated processes or, more simply, set up short-term cross-functional project teams.¹⁵²
- Cooperative arrangement, which means informal, but regular communication through inter-departmental meetings, hall talk, and cross-functional teams.¹⁵³
- Management controls. Top management should promote cross-functional teamwork and/or set goals or performance measures which promote integration of departments.¹⁵⁴
- Standardization. Individual skills and businesses processes should be standardized to ease the coordination.¹⁵⁵
- Cultural understanding. In an MNE, cultural differences play a role in internal human resource management. Central functions and subsidiaries in different countries should understand and accept the different cultures. Employing both **local and domestic personnel** in foreign subsidiaries is a possible solution for supporting the internal and customer-oriented coordination.¹⁵⁶ It is necessary to explain what “local and domestic personnel” refers in this thesis, since it may cause misunderstanding without explanation. Taking an example of a Chinese firm setting up a subsidiary in Germany, local personnel refers to German employees or employees with a strong German background; and domestic personnel refers to Chinese employees or employees with a strong Chinese background.

¹⁴⁴ See Mukhopadhyay & Gupta (1998), p. 102–103.

¹⁴⁵ See Womack & Jones (2003), p. 283; Holweg & Pil (2005), p. 51.

¹⁴⁶ See Tuominen *et al.* (2000), p. 157.

¹⁴⁷ See Min (2001), p. 376.

¹⁴⁸ See Kahn & Mentzer (1998), p. 54.

¹⁴⁹ See Kahn *et al.* (2004), p. 1085.

¹⁵⁰ See for example Cooper *et al.* (1997), p. 10.

¹⁵¹ See Min (2001), pp. 382–383.

¹⁵² See Golobic & Vitasek (2007), p. 434. For possible organizational structure for logistics activities, see Pfohl (2010), pp. 218–252.

¹⁵³ See Kent (1996), pp. 69–70; Min (2001), pp. 377–379.

¹⁵⁴ See Min (2001), pp. 379–380.

¹⁵⁵ See Min (2001), p. 381.

¹⁵⁶ See Perlitz (2004), p. 422.

Chapter 6

Internationalization of Chinese firms

Since the domain of this study focuses on internationalization of Chinese firms, this chapter will introduce the development of Chinese firms and their internationalization in the last few decades, which has been promoted by the Chinese government's policies and the development of the economy. The first section will give an overview of the political background and the development of Chinese economy after the Cultural Revolution¹ and the economic reforms. The status quo of the foreign investment of Chinese firms will be introduced in the second section. Since the research domain is limited to manufacturing firms, the third section will analyze the applied internationalization strategies and problems in the internationalization of Chinese manufacturing firms.

6.1 Development of China and Chinese economy

In order to understand the internationalization of Chinese firms, it is necessary to have a closer look at China's political background, economic development, and technological changes. These political, economic, and technological factors are both drivers and supporting factors for the “going out” of Chinese firms.

6.1.1 Political background

Shortly after the end of the Cultural Revolution and DENG Xiaoping's² regaining the political leadership, economic reforms and the policy of “opening up” were launched in China. Since then, the transition towards a market economy has extended over 30 years, which is already longer than the period of socialism under the Mao's rule. China's approach to economic transition has been quite different from that of most of the other socialist countries, for example the

¹ The Cultural Revolution started in 1966 and ended in 1976.

² DENG Xiaoping was the chairman of the Central Military Commission from 1981 to 1990. During that time, the president of China was LI Xiannian from 1983 to 1988, and YANG Shangkun from 1988 to 1993. Note that the family name typically precedes the given name in many south-east Asian cultures, including Chinese. This convention is followed in this thesis.

East European countries and countries who split off from the former Soviet Union.³ China's economy has been transformed successively through a series of economic reforms. When China's leaders started the reform, they saw China as a low-income developing country, which was in urgent need of economic growth, but not of political revolution, so they tried to conduct a gradual transformation of the economic system together with the economic development. Individual reform policies were frequently evaluated and modified based on their contribution to the economic growth and adapted to new challenges and circumstances.

The reform in the last three decades can be roughly divided into two phases — the 1980s (more specifically, from 1979–1992) and from 1993 to the present.⁴ The reforms during the first phase took place under the leadership of the “Second Generation” — DENG Xiaoping. The policies applied in this phase were successful in moving China in the direction to market economy. For example, the reduction of the state's monopoly led to a rapid entry of new firms and adoption of market prices. This enhanced the market competition and pushed the government — the owner of SOEs — to become more concerned with profitability and the firms' performance. Two incidents happened at the end of the first phase — the Tiananmen Square political crisis in 1989 and the collapse of the Soviet Union in 1991. During this period, the conservatives in Chinese government attempted to roll back reforms, but did not succeed. It was in this situation that DENG Xiaoping took a “Southern Tour” in 1992 in order to accelerate the economic reform. DENG declared during his tour that “Development is the only hard truth” and “It does not matter if policies are labeled socialist or capitalist, so long as they promote development.”⁵ The concept of a “socialist market economy” was brought forward on the 14th National Congress in October 1992, which made it clear that markets must extend to all main sectors of China's economy.

From 1993, the “Third Generation” of China's leadership — the administration of JIANG Zemin and ZHU Rongji — started a new phase of economic reform. The main reform policies of the new regime were: controlling the inflation in order to achieve price stability, downsizing the SOEs in certain sectors, and accepting a moderate amount of privatization. By mid-1990s, China had successfully moved from a command economy to a functioning market economy. A consequence of these changes broke sharply with one of the key characteristics of the reform in the first phase — a pattern labeled as “reform without losers”.⁶ During the first phase of the reform, the position of workers in SOEs was protected despite market competition. However, the reforms after 1993 caused significant losses of SOE workers. Many of them became laid off workers or had to move to the private sector or to foreign-invested firms. The privilege of being in SOEs gradually disappeared.

In 2003, the “Fourth Generation” of China's leadership — the HU Jintao and WEN Jiabao administration — took over in China. The fundamental direction of the policies was not significantly changed, but the context was broadened. For example, the emphasis on regional

³ For a detailed analysis, see [Sachs & Wing \(1994\)](#).

⁴ See [Naughton \(2007\)](#), pp. 91–107.

⁵ See “Nan Xun Jiang Hua” — collected speeches given by DENG Xiaoping during his Southern Tour from January 18 to February 21, 1992. Translated by the author.

⁶ [Lau et al. \(2000\)](#).

development was shifted to regions such as the Northwest and the Northeast, which were left behind in the earlier reform process. Individuals such as rural-to-urban laborer are a new special group formed during the reform process, and they can not be excluded from the new reform policies any longer. After a review of China's reforms in the last three decades, the Chinese leaders created a Chinese strategy of developing economic and political system⁷ — the so called “road of socialism with Chinese characteristics”. One of the key changes in China's transform from a central planning system into a market economy was the decline in the number of large SOEs and the increase in the number of private enterprises.⁸ When the reform started in 1978, China's industry was basically made of SOEs with a small percentage of “collective enterprises”.⁹ In 1978, the SOEs' output accounted for 77% of the gross industrial output, with the remaining 23% produced by the collective enterprises. This share of SOEs declined steadily to only 28.5% in 1996 and 8.3% in 2009.¹⁰

The milestone for the ownership change of Chinese firms was the adoption of the Company Law in 1994. The Company Law provided a framework for “corporatizing” SOEs — converting traditional SOEs into a legal form of a corporation in order to fit to the market economy.¹¹ Once a SOE is converted into a corporation, it is possible to change its ownership by selling off some shares of the corporation. During the privatizing process, a policy called “grasp the large and leave the small” was applied.¹² Under the guidance of this policy, the Chinese central government has been increasingly concentrating on some core sectors such as energy, natural resources, infrastructure, and a few others with substantial economies of scale. Firms in these sectors remain SOEs controlled by the central government.¹³ Many local government-run firms were converted into private firms.

“Firms in the private sector” (shortened as privately-owned enterprises (POEs) in the following) in this study are defined to include cooperative enterprises, limited liability corporations, shareholding corporations ltd., and private enterprises.¹⁴ Excluded from the defined POEs in this study are wholly state-owned enterprises, collectively owned firms, JVs with foreign investment, or wholly foreign-owned firms.¹⁵ The POEs' share of gross industrial output increased from 0% in 1978 to 15% in 1996 and 60.8% in 2009.¹⁶ The reform of the ownership of firms and the growth of the private sector contributed significantly to the development of Chinese economy. Moreover, POEs' role in Chinese outward FDI is also becoming increasingly important, as will be described in Chapter 6.2.4 on page 75.

⁷ See Hoffmann (2008), p. 12.

⁸ See Ding *et al.* (2008), p. 298.

⁹ “Collective enterprises” are factories collectively owned by workers in the enterprise, but are actually controlled by local governments or other state bodies, so collectively owned enterprises are basically state-controlled enterprise (SCE). Collectively owned firms in the countryside are called township and village enterprises (TVEs).

¹⁰ See NBS.

¹¹ See Naughton (2007), pp. 297–298.

¹² The policy of “grasp the large and leave the small” was adopted at the 15th National Congress in 1997.

¹³ See also Woetzel (2008).

¹⁴ Classification based on the definition of NBS. For a similar classification, see Tsui *et al.* (2006), p. 5. These firms can be small-scale household enterprises of family business, privately owned middle or large-scale enterprises, spin-offs of SOEs, or privatized former SOEs.

¹⁵ JVs or wholly-owned firms of investors from Hong Kong, Macau, and Taiwan are also excluded from POEs.

¹⁶ See NBS.

6.1.2 Economic and technological development

Since the adoption of reforms and the policy of “opening up” in 1978, China has experienced dramatic economic growth. The GDP growth rate has stayed around 10% during the last decade,¹⁷ and in 2010 China’s GDP at purchasing power parity (PPP) is ranked to be the second, behind the USA.¹⁸ Figure 6.1 shows the development of China’s GDP compared to USA’s, Japan’s, and Germany’s GDP in the last twenty-five years.¹⁹ The curve of China’s GDP (PPP) share of world total shows a clear increasing trend.

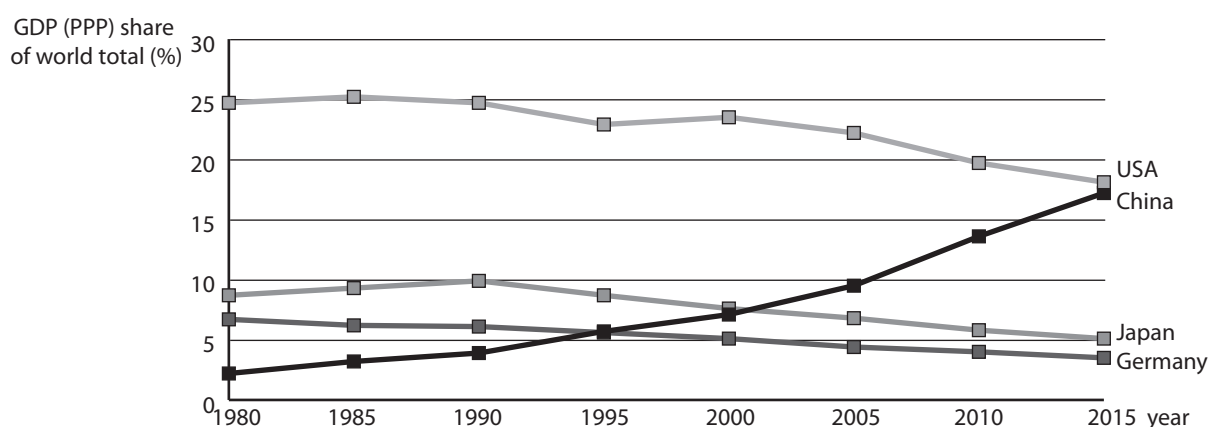


Figure 6.1: Development of China’s GDP from 1980 to 2015
(Own illustration based on the data of IMF, 2011.)

Despite the high growth rate in absolute terms, the GDP per capita in China is still very low. In 2010, the GDP (PPP) per capita in China is only US\$ 7519, which is six times lower than that in the USA and ranked 94th in the world.²⁰ This is one important reason why China is still considered to be a developing country. Another commonly discussed question is whether China now has the ability to join the internationalization process. A major reason for the doubt is that the economic development in different regions in China is very unbalanced with well developed southeast coastal areas and the lagging northern and western rural areas.²¹ The second generation of leaders thought that having a balanced economic development throughout the whole of China was not possible and the reform policy was formulated to “let a certain amount of people (certain regions) get rich first”.²² Different regions were promoted by three generations of China’s leadership, starting with the Pearl River Delta by DENG Xiaoping. The concept of special economic zones (SEZs) in China was raised at that time and Shenzhen was the first SEZ in China to jump-start the process of economic opening. The Chang River (Yangtze River) Delta was promoted in the 1990s by the JIANG–ZHU Generation, and the HU–WEN Generation set the focus on the northeast and Bohai regions. The policy of “Developing the

¹⁷ See CIA (2011).

¹⁸ See IMF (2011).

¹⁹ In this figure the GDP (PPP) share of world total is used. CIA argues that China’s exchange rate is determined by fiat, rather than by market forces, therefore the official exchange rate measure of GDP is not an accurate measure of China’s output. In China’s situation, GDP at PPP provides the best measure for comparing output across countries. The data for year 2015 is estimated.

²⁰ See IMF (2011).

²¹ See NBS.

²² Policy and slogan given by DENG Xiaoping.

Grand Northwest” was brought forward in the 10th Five-year plan in 2000.

The rapid economic growth along the coastal area is not only the result of the policy for regional development, but also related to the industrial structure policy.²³ During the 1980s and 1990s, the fast-growing industries were light and labor-intensive manufacturing such as electronics, furniture, plastic goods, and textile, which fit to the traditional skill profile in the coastal area, and this shift of the industrial structure brought rapid economic growth to these regions. However, most of these industries have low technological content. Since the end of the 1990s, another shift of industrial structure took place. Emerging industries with higher technological requirements such as telecommunications equipment and automobiles have been growing rapidly. This shift helped to establish a basis for outward FDI of Chinese firms. In addition to the structural change in industrial sectors, the service sector including logistics has been rapidly developed in the last decade.²⁴

“Science and technology is the first production factor” is the slogan used by DENG Xiaoping since the beginning of the reform. To facilitate the shift from low-tech to high-tech industries, the Chinese government promoted improving the ability of independent innovation. China has a tradition of technological invention going back over a thousand years, which was discontinued by the military defeat humiliation in the 19th century.²⁵ Along with the economic development, China’s expenditure in R&D has increased dramatically in the last decades. Although firms from North America, Europe, and Japan still dominate global R&D spending, accounting for nearly 94% of the total, the fastest-growing firms from China or India have by far the highest growing rate of around 30% in the last five years.²⁶ The Chinese government is planning to reach an investing rate of 2.5% of the GDP in 2020 for R&D.²⁷ Meanwhile, China is becoming more popular as an R&D location for foreign MNEs. For example, subsidiaries of American firms in China are among the most R&D-intensive overseas subsidiaries.²⁸ In order to encourage foreign MNEs to invest in R&D in China, the Chinese government even adopted new tax regulations.²⁹ Opening up to inward FDI is one of the strategies for acquiring technology from foreign MNEs. Another strategy is buying technology. For example, the financial crisis starting in 2008 was considered by Chinese government to be a good opportunity for purchasing advanced technologies from developed countries. However, it is not sufficient to only get technologies from outside. Nowadays, independent innovations are encouraged by the government in domestic firms through measures such as tax reduction and low-interest credit.³⁰ This includes not only large SOEs but also small and medium-sized POEs, since POEs also have the potential to be national champions and present China on the global market.

In order to guarantee technological development, China is now in a “war” of fighting for good human capital. The number of graduates from colleges has been increasing rapidly. However,

²³ See Naughton (2007), p. 333.

²⁴ Analysis based on the data of NBS.

²⁵ See Shenkar (2005), p. 61.

²⁶ See Jaruzelski & Dehoff (2009), p. 7.

²⁷ See Fuchs (2007), p. 60.

²⁸ See NSF (2004).

²⁹ For more details about the regulation, see Fuchs (2007), p. 61.

³⁰ See Naughton (2007), pp. 360–361.

the graduates can not always fulfill the firms' requirements due to the lack of practical experience. An important source for China's human capital are Chinese who have studied abroad. In the last 30 years, 1.36 million Chinese tertiary-level students have studied abroad and 370,000 of them have returned back to China.³¹ Returning Chinese scientists and engineers with advanced degrees can contribute a lot to China's human resource base. In recent years, Chinese central and local governments have made great efforts to attract and encourage these people to return to China.³² The returnees are playing an important role in the new high-tech sectors and also in improving the quality of education.³³ The students who do not return are also important as a connection of domestic and international research and innovation. With increasing outward FDI of Chinese firms, these people also present a good human resource base for these firms.

The "opening up" policy, the economic growth, and technological development, have not only helped the inward FDI from foreign MNEs grow rapidly, Chinese firms are also moving outwards to invest in foreign markets. Although the force driving China's internationalization is mainly economic, the political and strategic considerations of the Chinese government are also involved.³⁴ Before describing the status quo of the internationalization of Chinese firms in Chapter 6.2 on page 69, next section will first give a rough overview of the support from the Chinese government through continuously improved regulations and policies during the last few decades.

6.1.3 Policy for outward FDI

The outward FDI activities are supported by the Chinese government in order to accomplish major objectives:³⁵

- securing natural resources,
- contributing to China's economic adjustment, and
- improving the international competitiveness of Chinese enterprises.

Following the "Reform and Opening Up" policy, China has been developing suitable policies for the deliberation and approval of project proposals, as well as for the administration and promotion of outward FDI projects. Just like the policies for economic reform, which have been constantly modified according to the economic circumstances, the policies for outward FDI have been continuously adjusted as well.

The first official Chinese outward FDI regulation was included in the "Fifteen Economic Reform Measures", formulated by China's State Council in August 1979. Although the regulation

³¹ See Xinhua (2009).

³² For example, a "Thousand People" program was carried out to attract 1000 excellent high-level scientists. Many provincial governments or cities also adopted programs to get young scientists or engineers to start their own businesses, such as the "530 Program" in Wuxi. See also Zweig (2006).

³³ For example, the firm Suntech, which will be introduced in the case study in Chapter 10.2 on page 124 was founded by Mr. SHI Zhengrong, who studied and got his Ph.D in the field of solar technology in Australia.

³⁴ See Scalapino (2008), p. 109–110.

³⁵ Li (2009b), p. 31.

specified that “It is permitted to set up enterprises in foreign countries”, foreign investment was strictly controlled in practice due to the lack of experience in investing overseas.³⁶ From 1979 to 1982, all outward FDI projects had to be reported to the State Council for deliberation and approval. In 1983, Ministry of Foreign Trade and Economic Cooperation (MOFTEC) was authorized for the approval process of Chinese firms’ outward FDI projects. At that time, there was no standard procedure and the whole process took very long. In order to standardize the approval procedure and increase the efficiency of the procedure, a new regulation, “Trial Regulation on the Approval Procedure and Administration of Establishing Non-commercial Overseas Enterprises”, was introduced in 1985.³⁷ Along with the increase of outward FDI, some failures occurred due to unrealistic investment, poor management, or key personnel fleeing abroad with the capital. In order to solve these problems, the approval procedure was revised in 1991. The new approval system strengthened the control over outward FDI by involving more departments in the review system. The content of the inspection was also extended to include project proposal, feasibility report, contract, and statutes.³⁸

In 1993, the tasks and duties for outward FDI among different government departments were defined more clearly:³⁹

- MOFTEC was responsible for the outward FDI policies and administration of overseas enterprises.
- National Development and Reform Commission (NDRC) was in charge of the inspection and approval of project proposals, feasibility reports, etc.
- The foreign trade departments at the provincial-level were the governing bodies of overseas firms.
- The authorized economic and commercial departments in Chinese embassies coordinated the administration of Chinese overseas firms.

This new system contributed to a fast development of outward FDI from China. In 1999, in order to encourage more outward FDI in manufacturing sectors and more value-added industries such as household electric appliances, a special inspection and approval process for these kinds of projects was carried out. Meanwhile, State Economic and Trade Commission (SETC) is in charge of the project approval for these projects instead of NRDC. So far, this management system for outward FDI policies, approval, and administration is still in use.⁴⁰

A stronger push from the Chinese government for outward FDI was the “Go Out” policy in the 10th Five-year plan in 2001.⁴¹ In the 11th Five-year plan over the period from 2006 to 2010, the “quality” of the development was set to be one of the main objectives. “Quality” instead of “quantity” refers to manufacturing in China, especially export-oriented manufacturing, which is

³⁶ See [State Council of the People’s Republic of China \(1979\)](#).

³⁷ See [MOFTEC \(1985\)](#).

³⁸ See [MOFTEC \(1993\)](#).

³⁹ See [MOFTEC \(1993\)](#).

⁴⁰ See [Li & Xu \(2008\)](#), p. 3.

⁴¹ China’s economic development is planned over periods of five years. The 10th Five-year plan is for the period from 2001 to 2005.

dominated by low value-added production or assembly for foreign firms. Only few Chinese firms have managed to develop their own technology and establish brand names which allow them to enter foreign markets with higher margins. Such high value-added activities of Chinese firms are encouraged by the Chinese government.

During the financial crisis starting in 2008, the Chinese government set the focus on increasing the domestic demand and encouraging the domestic consumption.⁴² However, “Go Out” policy was not stopped and outwards FDI of China has been increasing steadily. The following section will give a detailed overview about the status quo of the internationalization of Chinese firms.

6.2 Status quo of internationalization of Chinese firms

The scale and scope of China’s overseas investment are growing continuously as a result of being promoted by the Chinese government. Different forms of international presence are used by Chinese firms, such as foreign trade, contracted project/labor service, and FDI.⁴³ Although, as explained in Chapter 2.1 on page 7, only Chinese firms who conduct FDI are included in the research domain of this thesis, it is necessary to give a short overview of the status quo of other forms of internationalization. The status quo of China’s outward FDI, including the investing volume, the target markets, and the investor will be analyzed in the following sections.

6.2.1 Foreign trade and contracting projects

China’s foreign trade volume increased from US\$ 20.6 billion in 1978, when the economic reform started, to US\$ 509.8 billion in 2001, when the “Go Out” policy was introduced. In 2010, total export volume reached US\$ 1577.93 billion.⁴⁴ Since the adoption of the “Open Door” policy, China has maintained an average of 14.5% annual growth rate of foreign trade, which is higher than the average growth rate of the world trade. With the increasing export and import volume, China became the world’s third largest trading country after the USA and Germany in 2003. In 2010, China became the biggest export country.⁴⁵

Figure 6.2 shows the structure of exported products from China. Over half of the commodities are high-tech products, such as electronic products. They are mainly manufactured by Chinese firms for foreign-owned firms and foreign brands. In this case, Chinese firms merely play a role of an extended production line of the foreign-owned firms, and are at the bottom of the value chain, with low profits. The geographic diversity of China’s export also reflects the fact that many Chinese firms are original equipment manufacturers (OEMs) or original design manufacturer (ODMs) of foreign brands. As shown in Figure 6.3, the trading partners are mainly developed countries, with the European Union (EU) being China’s biggest export market. This

⁴² China’s savings rate was at 49.9% in 2007, which is extremely high compared to the negative rate in the USA and around 8% in Germany. See [Anonymous \(2009b\)](#).

⁴³ See [Li \(2009c\)](#), p. 49.

⁴⁴ See [MOFCOM \(2010\)](#).

⁴⁵ See [CIA \(2011\)](#).

is very different from the investing markets of Chinese firms' FDI, which will be introduced in Chapter 6.2.2 on the facing page.

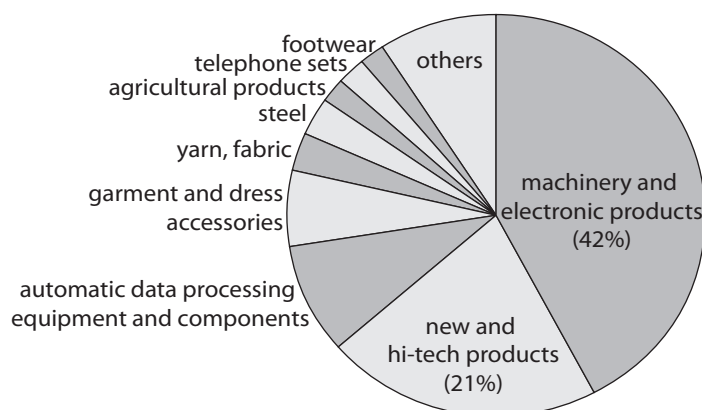


Figure 6.2: Structure of major commodities in China's export in 2007⁴⁶
(Own illustration based on MOFCOM, 2007, proportion in goods value.)

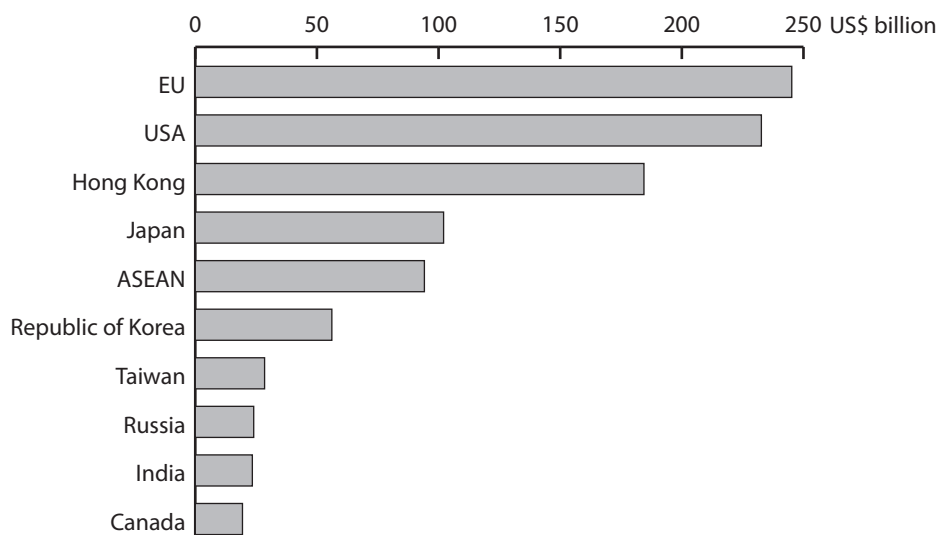


Figure 6.3: The major export markets of China in 2007⁴⁷
(Own illustration based on MOFCOM, 2007.)

Overseas contracted projects are an important element of China's "Open Door" policy. In the early time, starting from the end of the 1970s, the contracted projects were mainly traditional construction work such as building roads for the least developed countries in Africa. Nowadays, the projects have been expanded to technology-demanding fields such as building power plants, water supply, sewage treatment, etc.⁴⁸ So far, China has contracted projects in over 180 countries and regions.

Together with overseas contracted projects, overseas labor cooperation is also an important form of China's internationalization, especially in the service sector, with the major markets located in developing countries. The required labor is mainly at middle and low levels, such as construction workers. However, with the development of economy and the education in China,

⁴⁶ Last year for which complete data are available.

⁴⁷ Last year for which complete data are available.

⁴⁸ See Li (2009c), p. 52.

high level labor such as software engineers and doctors play an increasing role in the labor cooperation.

6.2.2 Development of China's outward FDI

Internationalization of Chinese firms is currently in the focus of discussion, as China transforms from being a low cost production country to selling brand products worldwide. Historically, the trade from China and Europe can be tracked back to the 4th century before Christ, along the famous Silk Road.⁴⁹ The trade between Europe and China through the Silk Road reached the highest point during the Tang Dynasty (618–907 A.D.), and there have been recent discussions in the logistics sector about the possibility of rebuilding this route.⁵⁰ The outward FDI from China officially started after the State Council announced 15 measures for economic reform in 1979. In general, the development of Chinese firms regarding outward FDI can be divided into three main stages (see Table 6.1).

- In the first stage, the investment was mainly in the agriculture and mineral industries. Shortly after the economic reform, Chinese government and firms realized that not only inward FDI from foreign firms but also outward FDI of Chinese firms is important for the Chinese economy. This stage is considered to be a test period of SOE investing into developing countries, with simple activities in primary sector of the economy. Towards the end of the first stage, there was an increase in the investment in the manufacturing sector and trading with more value-added products.
- In the second stage, China's outward FDI expanded to more sectors, including textile, household appliances, electronics, service, etc.⁵¹ The proportion of primary industry in outward FDI decreased dramatically. The target markets also expanded to Africa, Middle Asia, Middle East, Middle Europe, and South America. Instead of simple exporting, other activities such as setting up subsidiaries, JVs, and M&A were started.
- In the third stage starting from 2001, the internationalization of Chinese firms has been accelerating due to the launch of the "Go Out" policy in the 10th Five-year plan. Joining WTO in 2001 has also stimulated FDI activities of Chinese firms, because they had to face more severe competition in their home market. There has also been an increase in M&As, and more POEs joined outward FDI.

Figure 6.4 shows the development of the outward FDI volume from China in the last few decades. Although the absolute volume is still tiny in comparison to the world total outward FDI,⁵² China's outward FDI is showing the tendency of catching up and has a substantial potential for growth in the long term.⁵³

⁴⁹ See Müller & Herzog (2005), p. 83.

⁵⁰ See Landwehr (2008), p. 19.

⁵¹ See Li (2009a), p. 86.

⁵² In 2010 the outward FDI volume of China account for 5.5% of the world total outward FDI. Calculated based on UNCTAD (2011).

⁵³ See Morck *et al.* (2008), p. 338.

Table 6.1: Three stages of the outbound FDI of Chinese firms
(Own table based on [Yang et al., 2009](#), pp. 48–49.)

stage	background and character	type of firm	target market	entry strategy
1978–1990	“Open Door” economic policies, preliminary and simplistic activities, poorly managed and underperformed.	SOE	developing countries	export, subsidiary
1991–2000	further liberalization of the economy, the first wave of internationalization, increasing international M&A and initial public offerings (IPOs).	SOE, state-controlled enterprise (SCE)	mainly developing countries	export, subsidiary, JV
2001–present	“Go Out” policy and entry into WTO, acceleration of internationalization, more international M&A and greenfield.	SOE, SCE, POE	developing/developed countries	export, subsidiary, JV, M&A, greenfield

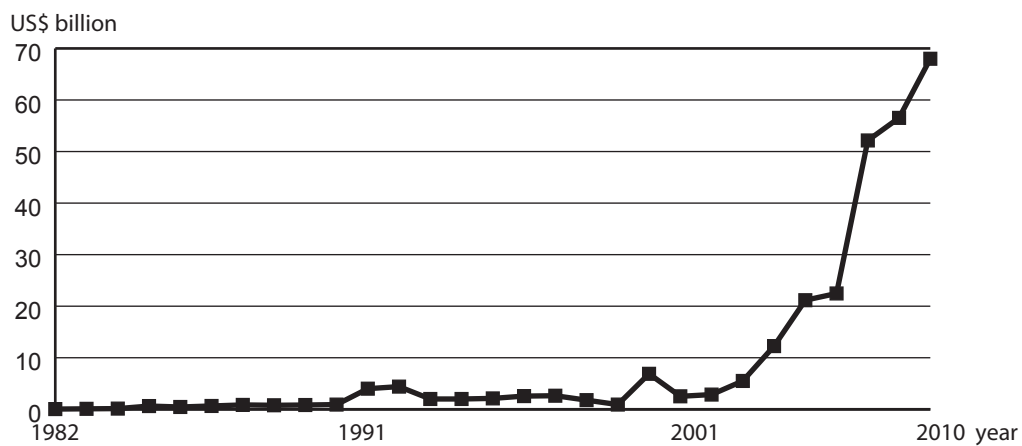


Figure 6.4: Development of the volume of Chinese outward FDI
(Own illustration based on the data of [UNCTAD, 2011](#).)

6.2.3 Target markets of China's outward FDI

China's outward FDI covers all continents in over 179 countries and regions. Figure 6.5 illustrates the composition of target markets based on volume. Asia has been the main target market so far, followed by Latin America. Observing the target markets at a more detailed level, Table 6.2 gives a list of six major economies of China's outward FDI. The EU is becoming the second biggest economy in terms of Chinese investment in 2009, following Hong Kong, and the rate of increase shows the fast growing tendency in European markets.

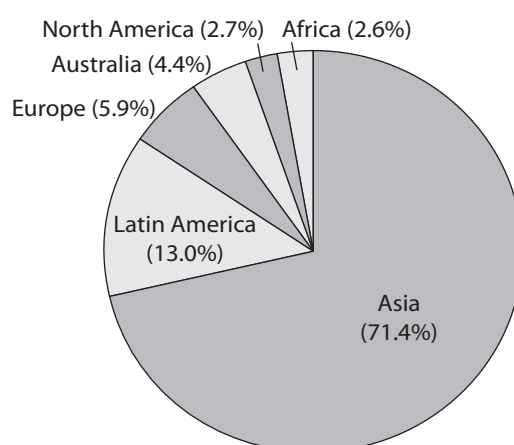


Figure 6.5: China's outward FDI volume of non-financial business in different continents in 2009
(Own illustration based on the data of MOFCOM, NBS, & SAFE, 2010, pp. 9–11.)

Table 6.2: China's outward FDI volume of non-financial business in the major economies
(Source: MOFCOM, NBS, & SAFE, 2010, p. 19.)

economies	volume in 2009 (US\$ million)	increase from 2008 (%)
Hong Kong (China)	35600	-7.9
EU	2966	535.1
ASEAN	2698	8.6
Australia	2436	28.8
Russia	348	-11.9
USA	909	96.7
Sum	44957	1.4

Asia has always been the largest investing market for Chinese firms due to the short physical distance and a relatively closer culture. Hong Kong has a mature market economy and is considered to be the best practicing field for Chinese firms before going to other international markets. Moreover, many Chinese firms open a subsidiary served as holding company in Hong Kong for investment elsewhere or even back into China,⁵⁴ so international M&As are very often operated by subsidiaries of the Chinese firms in Hong Kong. For example, the acquisition of IBM's PC BU was performed by Lenovo's Hong Kong subsidiary. ASEAN is the second

⁵⁴ See Morck *et al.* (2008), p. 340.

important market of China's outward FDI in Asia. Similar to the motivation of developed countries investing in China, Chinese firms go to ASEAN countries not only to gain access to the sales market, but also is because of the low labor cost and natural resources.

Latin America is the second biggest market for China's FDI, with a large amount of investment targeting the Cayman Islands and British Virgin Islands. Due to the loose economic environment in these territories, many Chinese firms opened subsidiaries there in order to evade tax, reinvest in China as foreign owned, avoid export limitations, etc. The investment in other Latin American countries is mostly in agriculture, low value products and infrastructure. However, the investment has been expanded to high value products in recent years, for example, ZTE and TCL have successfully set up factories in Brazil, and Huawei has entered the telecommunications market in Argentina. Mexico is often considered to be the "bridge" to other foreign markets, especially to the North American market.⁵⁵

China already started the cooperation with Africa in the 1950s and has a good relationship with almost all African countries. After the launch of the "Go Out" policy, China has increased investment in Africa. In 2008 there are about 800–1000 Chinese firms investing in Africa. The main motivations for the investment are natural resources and low labor cost. However Africa is also an important sales market for Chinese products, for example household appliances.

Like China, most countries in Asia, Latin America, and Africa are developing economies, and have lower entry barriers in comparison to the European or North American markets. In these developing economies, Chinese firms can produce cheaply and sell their products well. Therefore, before entering the developed economies, Chinese firms usually start with these markets to get experience in internationalization. However, in order to become leading global players, to gain global influence, and to be at the higher end of the value chain, Chinese firms need to enter developed economies with their own brand products. In 2009, China's outward FDI to Europe and North America was US\$ 3.35 and 1.52 billion respectively, which accounted for 5.9% and 2.7% of the total volume of China's outward FDI. Taking into account that about 76.4% are investments in Hong Kong, Cayman Islands, and British Virgin Island with the purpose of evading tax, Europe and North America are actually very important in China's "Go Out" policy.⁵⁶

Investment in the USA is often influenced by political issues. For example, Lenovo had to accept certain limitations in the American market when acquiring IBM's PC BU in 2005. Such political issues increase the difficulty of Chinese investment.⁵⁷ However, such investment is encouraged and supported by the Chinese government and the investment volume has been increasing rapidly in the last few years. The main motivations for the investment are setting up or acquiring brands, gaining technology and natural resources. The same motivations also apply to China's outward FDI in Europe. Along with Russia and Great Britain, Germany is one of the most important target markets of Chinese investment in Europe. Germany not only has a large inland market, but can also be used as a logistics center to reach other European

⁵⁵ See Li (2009a), pp. 163–185.

⁵⁶ All the percentages in this paragraph are calculated based on the data of MOFCOM, NBS, & SAFE (2010).

⁵⁷ See Li (2007), p. 158.

markets. The characteristics of German and European market will be analyzed in more detail in Chapter 7.2.1 on page 95. The investing Chinese firms have formed some clusters in Europe. For example, London is the most popular location for European headquarters of Chinese firms. London has always had close relation to Hong Kong due to historical reasons, and it is also a global financial center and an important location for high-tech industry.⁵⁸ Prato in Italy is becoming a cluster for Chinese textile firms. There are about 400 Chinese firms in Hamburg due to its importance as a logistics hub.⁵⁹

6.2.4 Investors in China's outward FDI

Along with the shifting of the target markets, the sector structure of Chinese outward FDI has also changed dramatically in the last 30 years. China's outward FDI started with investment mostly in agriculture and mineral industries in the 1980s, and today it covers almost all sectors. Figure 6.6 shows the proportion of investment volume in different sectors. The volume of investment in mineral industry decreased over 52% from 2006 to 2007. At the same time, investment into wholesale/retail, transport/warehousing/postal services, and manufacturing industry has increased almost 5, 3, and 1.5 times, respectively.

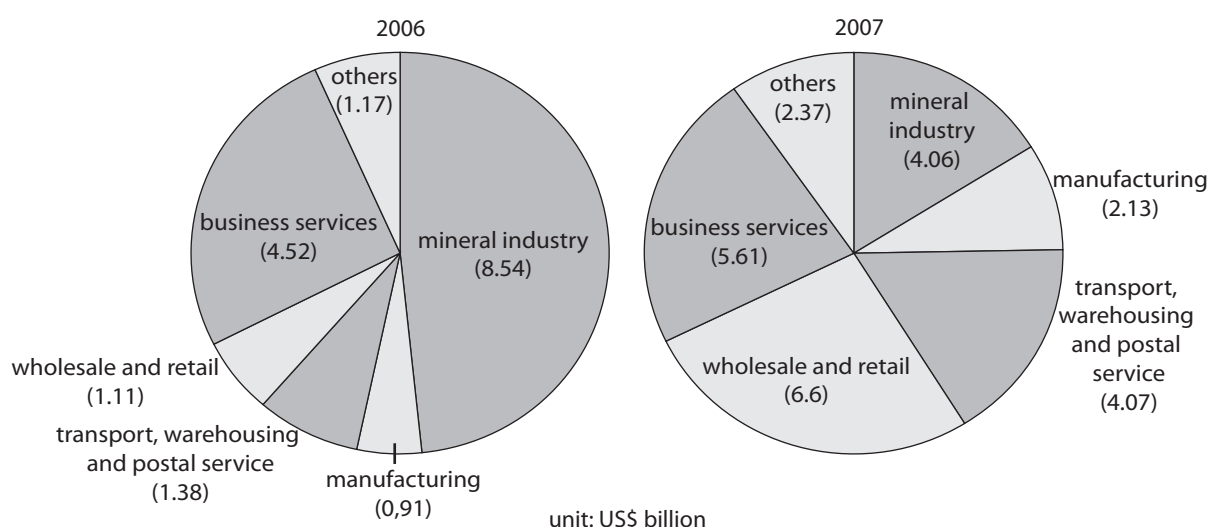


Figure 6.6: China's outward FDI volume of non-financial business in different sectors in 2006 and 2007⁶⁰
(Own illustration based on the data of MOFCOM, NBS, & SAFE, 2008, p. 29.)

By the end of 2009, there were over 12000 Chinese firms investing in 177 countries and regions.⁶¹ Based on the proportion of investors in different sectors, almost half of the firms in 2007 and one third of the firms in 2009 are manufacturing firms,⁶² which makes them one of the most important groups to be observed in any research about China's outward FDI. Detailed analysis

⁵⁸ See Fuchs (2007), p. 54.

⁵⁹ See HWF (2005), p. 3

⁶⁰ The comparison between the data from year 2006 and 2007 shows the shift of the sectors in outward FDI most clearly.

⁶¹ See MOFCOM, NBS, & SAFE (2010), p. 2.

⁶² See MOFCOM, NBS, & SAFE (2008), p. 16 and MOFCOM, NBS, & SAFE (2010), p. 32.

about China's manufacturing industry will be given in Chapter 6.3 on the facing page. The other big group are wholesalers and retailers.

As described in Chapter 6.1.1 on page 62, the privatization of SOEs has been taking place in China since the middle of the 1990s, and the number of private enterprises has increased rapidly since then. This change can be also noticed among the firms with outward FDI activities. In 2009, the SOEs accounted for 13.4% of the total number of Chinese firms with outward FDI activities, while the POEs account for 77.3% of the total number.⁶³ The role of SOEs in Chinese economy has always been important, even though the proportion of SOE in the total number of FDI firms has kept decreasing in recent years. Among the top 50 Chinese firms in overseas sales in 2009, only about 10% of the firms — such as Lenovo, Huawei, and Haier — are not SOEs.⁶⁴ Following the footsteps of SOEs, more and more POEs have joined the outward FDI. This shows the potential of Chinese foreign investment, as these POEs are generally more flexible than SOEs and have more chances of surviving in niche markets.

In general, Chinese firms are still in the beginning stage of going global, with a relatively low degree of internationalization. Many Chinese firms only have export operations or simple sales subsidiaries in foreign countries. Only a few experienced firms such as Lenovo or Huawei have a higher degree of internationalization, and their business covers a large number of countries, including developed countries. These firms have value-added activities such as own R&D centers, production, or procurement in foreign markets, and have adjusted their organizational structure to manage the international business. According to some criteria, Lenovo has a higher degree of internationalization than Dell.⁶⁵ Comparing transnationality index (TNI)⁶⁶, Chinese firms are still far behind the large MNEs from developed economies and also many MNEs from developing economies in the degree of internationalization. The average TNI of the world's top 100 non-financial MNEs ranked by foreign assets is 61.6% in 2006 and that of the top 100 non-financial MNEs from developing economies is 53.9% in 2006.⁶⁷ This shows that the gap between these two values is closing. However, no firm from mainland China is in the list of the world's top 100 MNEs. In the top 100 non-financial MNEs from developing economies ranked by foreign assets, nine Chinese firm are listed. They all have a lower than average TNI (see Figure 6.7).

The following section will focus on the outward FDI of firms in the research domain of this thesis — manufacturing firms.

⁶³ Own calculation based on the data of MOFCOM, NBS, & SAFE (2010), p. 28.

⁶⁴ For the list of top 50 Chinese firms, see MOFCOM, NBS, & SAFE (2010), pp. 59–60.

⁶⁵ See Dietz *et al.* (2008), p. 26. The following five criteria are measured: proportion of capital sourced outside home country, proportion of assets outside home country, proportion of sales outside home country, proportion of top executives who are not Chinese (for the case of Lenovo) / American (for the case of Dell), proportion of employees outside home country. Lenovo has a higher proportion than Dell in the first four criteria, only falls behind in the last criterion.

⁶⁶ TNI is used by UNCTAD to evaluate the firms' degree of internationalization. $TNI = ((\text{foreign assets})/(\text{total assets}) + (\text{foreign sales})/(\text{total sales}) + (\text{foreign employment})/(\text{total employment}))/3 \times 100\%$

⁶⁷ See UNCTAD (2008), pp. 28–30.

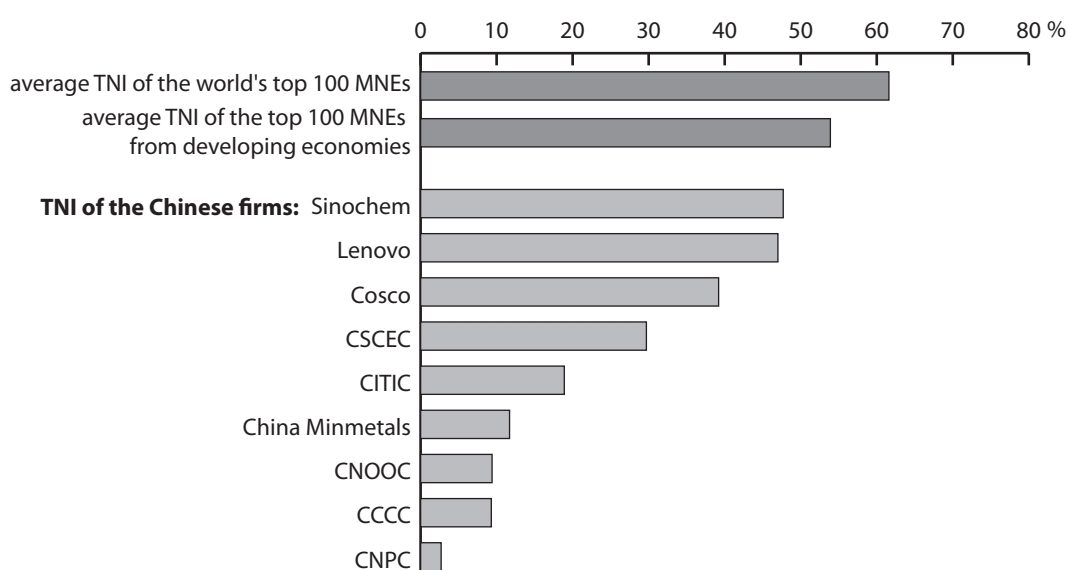


Figure 6.7: Comparison of internationalization degree based on TNI in 2006
(Own illustration based on the data of [UNCTAD, 2008](#), pp. 223–225.)

6.3 Characteristics of FDI of manufacturing firms

As described in Chapter 6.2.4 on page 75, manufacturing firms form the main group of the Chinese FDI investors. Their internationalization characteristics will be analyzed in this section as the basis for deepening the analysis of IDM of these firms in Chapter 7 on page 88.

The majority of the investors in the manufacturing sector are SME and non SOEs. Their investments are usually relatively low compared to firms from developed countries.⁶⁸ This situation can be explained by the actual situation in China, where labor intensive industries are more developed. Although these kinds of technologies and products are not attractive to the developed countries, they are suitable for developing countries, so Chinese SMEs have an advantage when investing in these markets. However, the research domain in this study does not include these SMEs who invest in the even less developed countries, but the ones who have the capability to enter developed countries, and these firms are usually large enterprises. Nevertheless, some large enterprises were developed from these medium-sized firms, who managed first to enter the neighboring markets, moved certain value-added activities to even lower cost countries, and improved their own positions in the value chain. The sector of household appliances is a typical example, with continuously increasing foreign sales and success in developed markets. For example, Haier, TCL, Midea, and Hisense are some representatives in this sector, whose successful stories in North America and Europe have been discussed in the last few years. Apart from labor intensive and mature industries, Chinese firms have made big progress in the new high-tech sector, such as telecommunications, solar energy, and information technology. Figure 6.8 shows the volume of import and export of high-tech products from 2000 to 2007. We can see that the export has grown faster than import. Some representatives in these sectors are Lenovo, Huawei, Suntech, and EVOC.

⁶⁸ The average investment of a FDI project from China is about US\$ 3 million. The average from developing countries is about US\$ 4.5 million and from developed countries US\$ 6 million. See [Li \(2009a\)](#), p. 108.

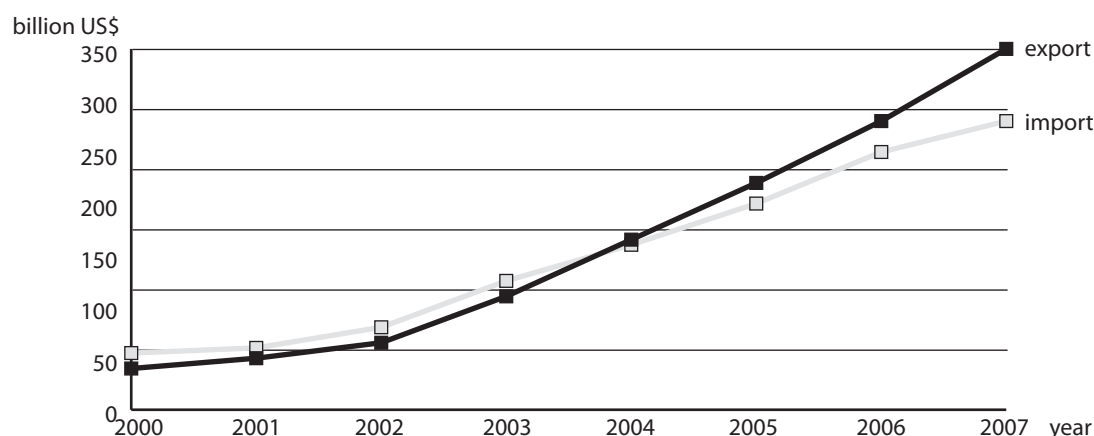


Figure 6.8: Import and export volume of high-tech products from 2000 to 2007⁶⁹
(Own illustration based on the data of MOFCOM, 2007.)

6.3.1 Motives for internationalization

The motivation for the internationalization of Chinese firms' is gaining access to raw material, technology, consumer brands, as well as new markets which can help their growth.⁷⁰ As described in Chapter 4.3.1 on page 29, there are four categories of motives according to DUNNING. The same structure will be used in this section to analyze the motives of Chinese manufacturing firms.

Resource seeking is one of the most important motives of China and Chinese firms due to the rapid economic growth.⁷¹ This motive is followed mostly by firms from the natural resource sector, for example Sinopec, CNPC, CNOOC. Manufacturing firms seek other forms of resources, such as labor and skills. For example, Huawei set up a subsidiary in India to use the qualified but inexpensive human resources for software development.⁷² Shougang entered the North American market to understand the developed markets and to improve their technology and products based on the demand of these markets.⁷³ Konka established an R&D center in the Silicon Valley in the USA to get connections to the high-tech environment and to use the talents there.⁷⁴

Market seeking is a logical outcome of the growth of China's export.⁷⁵ Through outward FDI, Chinese firms can get closer to the markets and final customers, and build stronger global brands, especially by entering developed countries. Some examples are Haier, Huawei, Lenovo, ZTE, Galanz, TCL, and Hisense, who managed to enter the markets of developed countries. Firms with a market seeking motive mostly belong to the sectors of household appliances, telecommunications, and consumer electronics. In recent years, domestic competition in China, especially in these sectors, has been getting fierce. Although Chinese market still has a lot of

⁶⁹ Last year for which complete data are available.

⁷⁰ See Hirt & Orr (2006), pp. 43–44; Deutsche Bank Research (2006), pp. 3–4.

⁷¹ See the survey described in Table 4.1 on page 33.

⁷² See Khanna (2007), p. 67.

⁷³ See Lu (2007b), pp. 156–158.

⁷⁴ See Lu (2007b), p. 210.

⁷⁵ See Wyk (2009).

potential, some Chinese firms have started to seek new markets.⁷⁶ Being a successful global player can in turn strengthen their competitive position in home market.

Efficiency seeking has not been an important motive of China's outward FDI yet,⁷⁷ but this may change in the future. On one hand, the labor cost in the east and south coastal areas is increasing. Moving labor intensive production to neighboring countries with lower labor cost is becoming more attractive. On the other hand, some large Chinese firms with more success and experience in internationalization may enter more similar foreign markets to realize economics of scope, or to rearrange and consolidate their production sites in lower cost countries in order to achieve economies of scale.

Although strategic asset seeking is generally not a very important motive for Chinese firms,⁷⁸ it drives them to invest in developed countries in Europe and North America. Firms who follow only the motive of strategic asset seeking usually focus on acquiring technology and production equipment, which they intend to use in China. More often, strategic asset seeking is combined with market seeking and resource seeking. A famous example is the acquisition of IBM's PC BU by Lenovo in 2005. Through the acquisition, Lenovo not only took over the markets IBM had, but also acquired intangible resources such as the distribution network, management know-how, and experience in foreign markets. Another example of combined motives in internationalization is the acquisition of German Schiess AG by Shenyang Machine Tool Co., Ltd. in 2004. After buying off the complete assets of Schiess, small machines were transported to China and the production continued there. The production of the core products remained in Germany.⁷⁹

Another important motive for Chinese manufacturing firms, which is not directly included in these four categories, is evading tax. As described in Chapter 6.2.3 on page 73, the investment in Cayman Islands and British Virgin Islands is based on this motive. Although the ratio of outward FDI with this motive to the total outward FDI is decreasing, it is still much higher than the ratio of other motives, which is considered to be a abnormal situation.⁸⁰

6.3.2 Internationalization strategies

In Chapter 4.3.2 on page 33, three dimension of internationalization and the strategies in each dimension were described. The same structure will be applied in this section to analyze the strategies⁸¹ of Chinese manufacturing firms in their internationalization and the challenges they are facing.

⁷⁶ See Reisach (2006), p. 112.

⁷⁷ See the survey described in Table 4.1 on page 33.

⁷⁸ See the survey described in Table 4.1 on page 33.

⁷⁹ See Anonymous (2004).

⁸⁰ See Zheng (2009), p. 202.

⁸¹ As in Chapter 4.3.2, the strategy of timing will not be discussed here.

The first dimension

The first dimension deals with the coverage of the world market, and depends on the strategy of market selection.⁸² There are basically two approaches — “the easy way first” and “the hard way first” (see Figure 6.9).⁸³

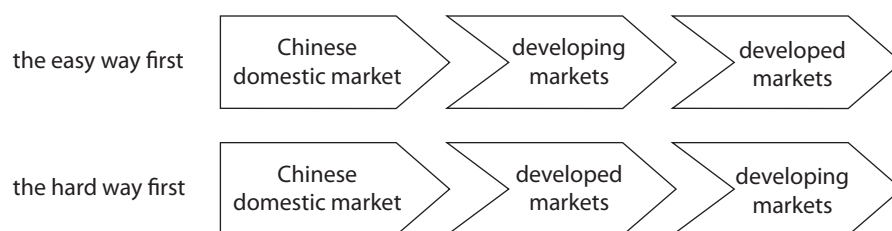


Figure 6.9: Two approaches of market selection of Chinese manufacturing firms
(Source: Jin, 2009, p. 25.)

Most Chinese investors follow the first approach. As shown in Figure 6.5 on page 73, the majority of the overseas investment of Chinese firms is in developing countries and regions. The strategy is especially suitable for SMEs due to their limited resources for implementing global strategies. Entering developing markets first, especially neighboring markets with similar situation as China, can reduce problems such as high investment, big cultural and social differences. This is not only true for SMEs; large firms such as TCL and Huawei have also used this strategy to gather international experience as a preparation for entering developed markets.⁸⁴ However, one notable limitation of this strategy is the negative impact on the Chinese firms’ image, when they try to enter developed markets later. Moreover, like the competitive situation in developed markets, the upper segment of the developing markets is often occupied by firms from developed countries. If Chinese firms can not win the upper segment but only follow the low cost strategy, the profit margin will be low.

In order to avoid the limitations of “the easy way first” approach, some “braver” and “stronger” Chinese firms chose to invest first in developed markets. The typical example is Haier, who started its internationalization way in the USA in 1999 and Europe in 2000. Haier tried to establish its brand name by entering developed markets. The success in these countries can ease the entry and growth in developing markets.⁸⁵ Another example is Huawei, whose initial outward FDI was used to set up an R&D center in the Silicon Valley in 1993. The goal of Huawei’s move was to collect technical information. However, most Chinese firms do not have the capability to follow this approach due to the lack of resources — financial resources, human resources, innovative technology, management skill etc. For the few firms who do, and can manage their resources to enter the competitive but mature and regulated European and North American markets, this approach can be an efficient and effective way to achieve global leadership.

⁸² See Chapter 4.3.2 on page 33.

⁸³ See Jin (2009), pp. 25–26.

⁸⁴ See Li (2009a), p. 123.

⁸⁵ See Jin (2009), p. 26. The terms “braver” and “stronger” were taken from there.

The second dimension

The second dimension deals with the value activities involved in foreign markets.⁸⁶ The strategies with non-equity investment such as export, licensing, franchising, and contract manufacturing will not be discussed here. M&As have often been used by Chinese firms to enter foreign markets in recent years and is considered to be the fastest way to establish a global presence.⁸⁷ Figure 6.10 shows the volume and number of M&As of Chinese firms in the last ten years. It can be seen that the development is influenced by the world economy, but has a growing tendency. Figure 6.11 shows the M&A volume based on sectors, among which natural resources and manufacturing are the two dominant sectors in M&A.

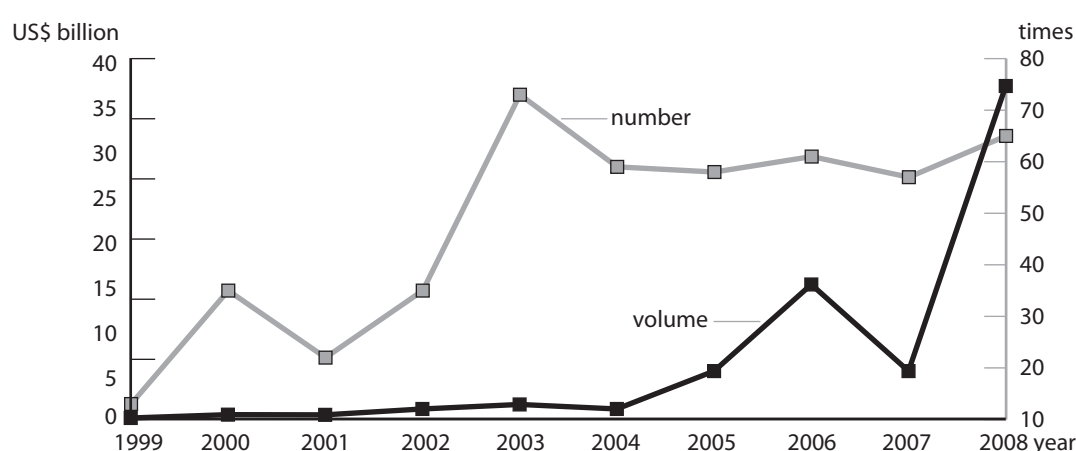


Figure 6.10: The volume and number of M&As of Chinese firms in non-financial sector from 1999 to 2008
(Source: Own illustration based on the data of UNCTAD, 2009b, pp. 267–273.)

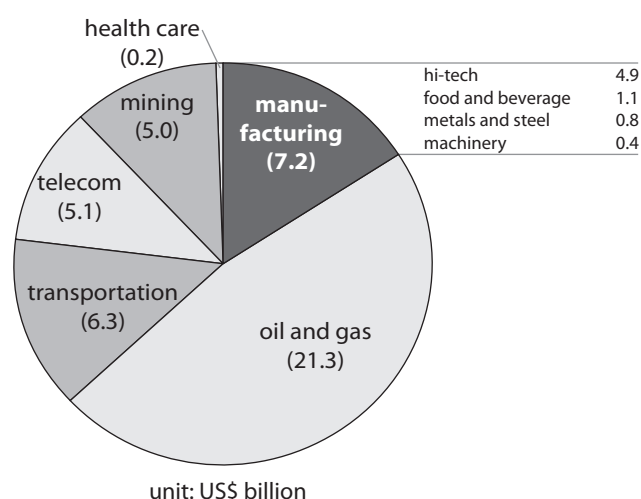


Figure 6.11: Volume of Chinese firms' M&A from 1995 to 2007 by sector
(Source: Own illustration based on the data of Luedi, 2008, p. 77.)

Although manufacturing firms can use M&As to get quick access to technology, distribution

⁸⁶ See Chapter 4.3.2 on page 33.

⁸⁷ Chinese firms have some advantages in M&A. One advantage is that they can get cheap financing from Chinese state-owned banks. The other one is that they are in a good position to cut costs in the acquired firms if they can shift the manufacturing to mainland China. See Hirt & Orr (2006), p. 40.

networks, human resources, brands etc., Chinese firms have little experience in M&A and usually also no deep local knowledge in the acquired firm's country. With little international experience, they must not only select the right partners and acquisition targets but also manage the post M&A integration of the procured resources into their original firms.⁸⁸ The challenges for Chinese firms in M&A include the following aspects:

- Whether the procured technology can be turned into sales. There is a risk that the procured technology is not state-of-the-art, or can not be turned into commercial products, or can be copied easily, or can not be applied to certain markets due to standards or compatibility problems.
- Whether the Chinese firms can manage to take over the acquired firm's markets. Chinese products often have the reputation of being cheap but low-quality. Furthermore, Chinese firms are not well-known abroad. There is a risk that the customers of the acquired firm would leave the new Chinese owned firm.
- Whether the employees from two firms can be integrated. One of the greatest barriers of Chinese firms' international expansion is the shortage of global talents.⁸⁹ M&A is a good opportunity for acquiring highly qualified employees and international management experience, but the challenge is to keep these employees after the M&A.
- Whether the organizational structure can be adapted for global operation. Many Chinese firms have a top-down organization, which means decision making is centralized, which is more suitable for managing one market with one or a few BUs. The challenge lies in redesigning the organization.⁹⁰
- Laws and regulations of the host market.

Two examples — the successful acquisition of IBM's PC BU by Lenovo and the failed acquisition of the television BU of Thomson by TCL — can be used to explain the risks and challenges in M&A.⁹¹

Lenovo⁹² acquired IBM's PC BU at the end of 2004, which has been described as a case of “a snake swallowing an elephant”. Lenovo, a well-known firm in China with an annual revenue of US\$ 3 billion at that time, was unknown to the international market. After the M&A, Lenovo managed to keep selling high-priced PCs made by a Chinese firm by keeping “Think” as product name, retaining the former sales team, and relocating the firm's headquarter from Beijing to New York. In order to prevent former IBM employees from leaving because of being unwilling to work for a Chinese firm, Lenovo offered more career opportunities for employees, especially top management. Lenovo emphasized having a fully open and global culture. The official language

⁸⁸ See [Fuchs \(2007\)](#), p. 119. For more theoretical fundamentals about M&A, see for example [Wirtz \(2003\)](#).

⁸⁹ See [Dietz et al. \(2008\)](#), p. 27.

⁹⁰ For some possibilities of organizational structure for MNEs, see for example the EPRG model described in Chapter 4.3.2 on page 33.

⁹¹ Since the M&A activities of Chinese manufacturing firms have not had a long history yet, the analysis can only be based on the current situation. Therefore no final judgment can be passed from the long-term point of view. Moreover, each example alone does not cover all these five aspects of risks and challenges.

⁹² The analysis of Lenovo is based on [Schmidt & Kucher \(2006\)](#); [Si \(2006\)](#), pp. 19–34; [Fuchs \(2007\)](#), pp. 138–141; [Liu \(2007\)](#), pp. 574–576.

is English. Lenovo also announced that the compensation of former IBM employees would not be changed. Concerning organizational aspects, Lenovo set up new headquarters in New York, international operation center and marketing center in Raleigh, and an operation center, R&D center, and procurement center in Beijing.⁹³

TCL⁹⁴ acquired Thomson's television BU in 2004 and Alcatel's mobile phone BU in the same year. From a technology point of view, Thomson is good at cathode ray tubes, and have no advantage in terms of LCD technology. However, LCD televisions became a popular product soon after the M&A, which resulted in a high stock of TCL's tube televisions. The integration after the acquisition also delayed the schedule for TCL's LCD television entering the market. From Alcatel, TCL only got the patents for 2G and 2.5G technology, but not for the booming 3G technology with much greater market potential. TCL was not familiar with the local labor law and other regulations in France. After high losses and the bankruptcy of the JV, TCL was facing high costs of severance payments, which was not calculated before the M&A.

Instead of going the M&A path, many manufacturing firms chose to set up their own subsidiaries and expand gradually. The two strategies are often both used by the same firm for different markets or products. When following the green field strategy, these firms face a different kind of challenge: instead of having to deal with integration issues after an M&A, these firms need to have sufficient resources. The challenges which Chinese firms are facing in their internationalization will not be discussed in detail in this thesis. Since the focus is on distribution, the challenges and problems in distribution management for Chinese manufacturing firms will be analyzed in detail in Chapter 7 on page 88.

Regardless of their market entry strategies, Chinese manufacturing firms conduct different value-added activities in international markets:

- OEM production — use the low cost advantage to produce for another brand. Typical example is Galanz,⁹⁵ whose microwave oven has a 40% market share worldwide. However, the profit margin for OEM manufacturer is low.
- Setting up an own sales network. This is the step that most Chinese firms take when their export volume increases.
- Setting up a production site. There are different reasons for producing abroad, this is often done to bypass trade barriers. For example, Hisense set up a production site in South Africa in 1996 to bypass the import limitation for televisions made in China.⁹⁶ Other reasons are reducing production costs, getting closer to the market, reducing logistics costs, shortening reaction time, or establishing a brand name.
- Setting up an R&D center. Many large Chinese MNEs such as Haier, Little Swan, Huawei, and Bosideng, who value technology and innovation, are setting up R&D centers mostly

⁹³ This was the organizational structure shortly after the M&A. The current organizational structure of Lenovo is different, following several changes.

⁹⁴ The analysis of TCL is based on Schumacher & Schaudwet (2004), p. 54; Shi (2004), pp. 243–266; Fuchs (2007), pp. 161–164; Li (2007), p. 123; Zheng (2009), pp. 10–16.

⁹⁵ For more information about the internationalization of Galanz through OEM production, see Si (2006), pp. 50–72; Fuchs (2007), pp. 146–148; Lu (2007b), pp. 193–198; Zheng (2009), pp. 48–60.

⁹⁶ See Fuchs (2007), p. 84.

in developed countries or countries with special technology advantages.

A few large Chinese MNEs have managed to set up their international sales, production, and R&D network, and have achieved a higher degree of internationalization. Sourcing from abroad is not common for Chinese manufacturing firms with an exception in the steel industry. Baosteel not only has a worldwide sales network, but also invests in markets with high quality iron ore for production in China.⁹⁷

The third dimension

The third dimension deals with the allocation of organizational resources for international activities and the coordination of these activities. Most Chinese manufacturing firms are still in the early stage of internationalization, and have not had the need, time, or experience to rearrange and optimize their organizational structure for international expansion. However, the success of some large Chinese MNEs abroad has highlighted the importance of international organization. Figure 6.12 shows the organizational commitment to the internationalization of some Chinese manufacturing firms and their performance. The leading group in the top right corner are the current “national champions”. Again taking Lenovo as an example, the firm made its way from an ethnocentric (home country orientation) to a geocentric (world orientation) model. A dramatic organizational change took place after the M&A of IBM’s PC BU in 2004. In 2009, Lenovo launched its new organizational structure and created two new BUs for customers in mature markets and emerging markets respectively.⁹⁸ The new structure replaces the old organization, which was oriented towards regional markets. Based on product lines, Lenovo also transformed its structure into two BUs — Think Product Group for large corporate customers and Idea Product Group for consumers and small and medium enterprises.⁹⁹

Optimizing internal organization is one aspect of the third dimension. The other aspect is integration with external resources. Establishing international strategic alliances (in the form of either JVs or agreements) can be an efficient way to get access to the resources needed in the internationalization, which are not available in the firm internally. Taking Huawei as an example, they have set up ten joint R&D laboratories with Texas Instruments, Motorola, IBM, Intel, Agere Systems, Sun Microsystems, Altera, Qualcomm, Infineon and Microsoft since 1997. For product distribution, Huawei signed a mutual assistance commodity consignment agreement with Marconi. Marconi uses its brand to redistribute Huawei’s digital communication products to telecommunications operators, while Huawei redistributes Marconi’s microwave equipment in its wireless network projects.¹⁰⁰ Different ways of expanding the distribution network and improving delivery service through cooperation with LSPs will be discussed in Chapter 7 on page 88.

⁹⁷ See Fuchs (2007), p. 101; Jin (2009), pp. 5–6.

⁹⁸ Mature markets include Australia, New Zealand, Canada, Israel, Japan, USA, West Europe etc. Emerging markets include China, Korea, East Europe, India, Turkey, the Middle East, Pakistan, Egypt, Russia, Central Asia etc.

⁹⁹ See Lenovo (2011).

¹⁰⁰ See Wang (2009), p. 189.

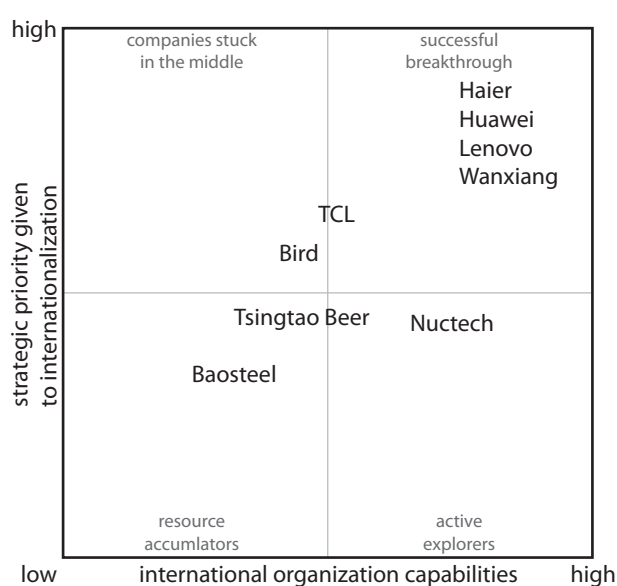


Figure 6.12: A survey of organizational commitment to internationalization of Chinese manufacturing firms
(Source: Wang, 2009, p. 169.)

6.3.3 Comparison to the internationalization of Korean manufacturing firms

Korea has experienced dramatic economic growth since the 1970s¹⁰¹ and Korean firms started their internationalization at that time. However, Korea's outward FDI has only been growing fast since 1987, from US\$ 320 million in 1987 to US\$ 3.5 billion in 1996. After a short cutback at the end of the 1990s due to the Asian economic crisis, the outward FDI continued its growth.¹⁰² In the 1990s, Korea was regarded as one of the “four Asian tigers” together with Taiwan, Hong Kong, and Singapore. However, compared to developed countries, Korea was still an emerging country at that time. The situation for Korean firms entering developed countries in the 1990s is similar in some aspects to that of the Chinese firms today, so it is helpful to have a look at the internationalization of Korean firms. Moreover, the experience of German LSPs with Korean automotive firms in the 1990s will be discussed in Chapter 10.5 on page 140 as a comparison to the Chinese automotive industry.

Korean scholars argue that the theories of internationalization from HYMER, DUNNING, and WELLS can only give a satisfactory explanation of certain phases of Korea's overseas investment¹⁰³ — for example the phase in the 1970s, when Korea's outward FDI was mainly oriented toward neighboring developing countries.¹⁰⁴ During the 1980s, Korean firms started to establish production sites in developed countries. In the 1980s and 1990s, Korean scholars tried to develop new theories to explain this phenomenon. The FDI in this period was characterized as

¹⁰¹ For more detailed data, see Lee *et al.* (2008).

¹⁰² See UNCTAD (2009b).

¹⁰³ See Cherry (2001), p. 18. For a description of the theories of HYMER, DUNNING, and WELLS, see Chapter 4.2.2 on page 21.

¹⁰⁴ For detailed data, see Bank of Korea (1996), pp. 26–27. From 1968 to 1980, the accumulated Korean investment in North America and Europe accounted for less than 30% of the accumulated Korea's total outward FDI. See Cherry (2001), p. 18.

“defensive”, “immature”, and “premature” by Korean scholars.¹⁰⁵ Without any clear firm specific advantages, Korean firms’ FDI was a response to the imposition of trade restrictions which threatened the export to its major markets.¹⁰⁶ For example, in the case of Korean household electronic appliance producers investing in the USA, bypassing the trade barrier in the USA was a more important motive.¹⁰⁷ Besides being pushed by the import and export restrictions, Korean firms’ FDI were also driven by other motives, similar to those of Chinese firms.

In the 1980s and 1990s, many Korean scholars conducted empirical studies to seek the drivers and motives of the FDI of Korean firms. Apart from the most discussed motive — the defense of export markets in the face of trade friction and protectionism¹⁰⁸ — there were other motives, such as seeking raw materials, expanding market presence, lowering production costs, and having access to technology and sources of finance.¹⁰⁹ In the 1970s and early 1980s, the focus of investment was resource-seeking. It switched to market-seeking investment in industrialized countries in the late 1980s and early 1990s. In the late 1990s, the investment expanded to efficiency seeking, such as production in Eastern Europe for distribution in Europe. Strategic asset seeking, such as establishing R&D capabilities in Western Europe and the USA, also became important at that time.¹¹⁰

It was also starting from the late 1980s that Korean firms began serious investment in Europe. As with China, manufacturing is the most important sector in Korea’s outward FDI. Korean investment in Europe was dominated by firms in the manufacturing and trading sectors.¹¹¹ The most successful and representative industries are electronic consumer products and automotive industry.

In the case of the electronic consumer product industry, during the early stage of the internationalization in the 1970s and 1980s, many Korean firms used OEM sales, which led to a lower position in the value chain with no brand name or corporate image in the global market. With the development of the industry, the outward FDI was dominated by three big firms, namely LG, Samsung, and Daewoo, who set up their sales subsidiaries and manufacturing facilities throughout Europe. In general, Korean firms are struggling to maintain their competitiveness in the global market while facing the rising of production costs. Those who had low investment in R&D, branding, setting up their own sales and distribution networks, and relied on OEM sales, found themselves in a difficult stuck-in-the-middle position.¹¹²

Korean automotive firms started their internationalization in the late 1970s. With the support of the Korean government, the automotive industry developed rapidly in the 1980s. The “capacity push” forced the Korean automotive firms to export to other markets in order to have enough

¹⁰⁵ See [Cherry \(2001\)](#), p. 34.

¹⁰⁶ See [Jun \(1989\)](#), p. 182. It is necessary to bear in mind that the Korean domestic market is rather small.

¹⁰⁷ See [Yun \(1986\)](#), pp. 109–115. Of course, the benefits of internationalization needs to outweigh the costs.

¹⁰⁸ This motive is regarded as the most important motive of the FDI of Korean firms, especially of the investment in developed countries in the early stage of internationalization. See [Pan \(1985\)](#), pp. 144–145.

¹⁰⁹ See [Nam & Slater \(1997\)](#), pp. 39–40.

¹¹⁰ See [Cherry \(2001\)](#), p. 105.

¹¹¹ Based on the data of [Bank of Korea \(1997\)](#), pp. 14–15 and pp. 82–83.

¹¹² For more detailed analysis about the outward FDI of Korean firms in the industry of electronic consumer products, see [Cherry \(2001\)](#), pp. 57–81 and pp. 142–170.

demand for the built up capacity.¹¹³ Two large firms, Hyundai and Kia, started entering the Latin American and Middle Eastern markets with very low quantities in the 1970s. In the middle of the 1980s, Hyundai penetrated the North American market, followed by Kia and Daewoo. Then in the 1990s, they managed to enter the European markets. Korean automotive firms were facing great difficulties because of lacking marketing and service networks in major export markets.¹¹⁴ Later, Korean firms set up R&D centers and production facilities abroad, for example in Canada for the North American market and in Eastern Europe for the Western European market. Additionally, they invested in huge logistics facilities for parts in order to support the sales network.¹¹⁵

Chinese firms in the industry of electronic consumer products have followed a similar course as Korean firms in their international expansion. The details of some Chinese firms in this industry will be given in Chapter 10.4 on page 137. Also, Chinese automotive firms are facing the same difficulties as Korean automotive firms did two decades ago. The experience of Korean automotive firms in Europe could be interesting for the study of Chinese firms' FDI, because a similar distribution model is expected by European LSPs. The model of the Korean automotive firms in Europe will be explained in detail in Chapter 10.5 on page 140.

¹¹³ See [Lautier \(2001\)](#), p. 208.

¹¹⁴ See [Kim \(1997\)](#), p. 39.

¹¹⁵ For example, Hyundai invested US\$ 30 million in a logistics center for parts in Belgium in 1996. Daewoo built a similar distribution center for spare parts in the Netherlands. See [Lautier \(2001\)](#), p. 230.

Chapter 7

MBV and RBV as explanatory theories for analyzing IDM of Chinese firms

The central question in the field of strategic management is “why do some firms persistently outperform others?”¹ In the case of the rising new MNEs and their international distribution activities for developed markets, the question is then “why do some new MNEs have more efficient distribution systems which help them to outperform others?”² In order to answer the question, explanatory theories are needed to explain the phenomenon and the logic. The first section in this chapter will describe the selection of RBV and MBV as explanatory theories. The following two sections will analyze the strengths, weaknesses, opportunities, and threats of Chinese MNEs in international distribution by using these two theories.

7.1 Selection of explanatory theories

This section describes the fundamentals of the theories of RBV and MBV. More importantly, it gives reasons for the selection of the combination of these two theories as explanatory theories.

7.1.1 RBV as the explanatory theory

The concept of a **resource** plays an important role in some of the theories of internationalization which are introduced in Chapter [4.2.2 on page 21](#). For example:

- The concept of a resource is involved with the ownership advantage in DUNNING’s eclectic theory. It has similarities to the resource-oriented research.

¹ See [Barney & Clark \(2007\)](#), p. 3.

² For the detailed research questions see Chapter [1.3 on page 5](#).

- Uppsala School's model includes resource commitment and the learning process.
- Similarly, LALL's theory is about acquiring, modifying, and using technologies (resources) from developed countries to achieve proprietary advantages.
- MATHEWS' OLI* framework — outward-oriented, linkage and leverage, integration is based on a resource perspective.

The RBV explains how firms can achieve superior economic performance by using their unique and valuable resources and capabilities inside the firm.³ MAHONEY & PANDIAN argue that firms achieve rents not because of their better resources, but because of their capability to make better use of their resources.⁴ Through the years of research, there has been a variety of definitions of what a resource is. Table 7.1 shows a list of selected definitions of a resource. The list also reflects the development of the concept of resource, with the focus set more on the intangible resources. The RBV claims that sustainable competitive advantage results from the inimitable, rare, and non-tradable intangible resources. Along with the discussion about what exactly resource is, there are also discussions about the terms “capabilities” and “competences”. BARNEY & CLARK argue that although this kind of discussion contributes to a better understanding of the full range of resources a firm may possess, the “new” theories such as “capability theories”, “dynamic capabilities theories”, “competence theories”, or “knowledge-based theories” are simply “battles over the label of this common theoretical framework”⁵ — RBV.⁶ Following their analysis, the terms resource and capability are used interchangeably in this thesis.⁷

The RBV of a firm is not only used in the research field of general strategic management, it has become an influential theoretical perspective in international business research.⁸ Although the absolute number of publications which apply RBV in internationalization is still not large enough, that number has been continuously increasing in the last two decades and the coverage of internationalization topics is expanding.⁹ Recently, RBV has been increasingly applied to the research about the internationalization of SMEs. For example, BURGEL *et al.* used a resource-based approach for their study about the internationalization of German and British SMEs. They consider RBV to be particularly suitable for this research field, because it links the decision to internationalize to the resources and capabilities of the firm.¹⁰ LU *et al.* used RBV to observe the international business of entrepreneurial firms from China.¹¹ A variety of studies indicate that, due to their small size and limited financial and managerial personnel resources,

³ See Penrose (1995). PENROSE made contributions to the establishment of the RBV theory. She observed the bundles of productive resources and gave a broader definition of production resource, including intangible resources such as entrepreneurial skills. See also Barney & Clark (2007), pp. 11–12.

⁴ See Mahoney & Pandian (1992), p. 365.

⁵ Barney & Clark (2007), p. 23.

⁶ BARNEY & CLARK describe this discussion and the rise of these “new” theories as an extreme example of a classic academic “tempest in a tea pot” — “full of sound and fury but signifying nothing”. For details see Barney & Clark (2007), pp. 22–23.

⁷ The term competence is not discussed in this thesis.

⁸ See Peng (2001), p. 803.

⁹ For details, see Peng (2001), the criticism about PENG's summary by SIMON, and his literature research about this topic in Simon (2006), pp. 69–179.

¹⁰ See Burgel *et al.* (2000).

¹¹ See Lu *et al.* (2010). Since the Chinese firms covered by their survey mostly engage in export activities and not outward FDI, it is mainly a study about international business, not internationalization.

Table 7.1: Selected definitions of the term “resource” in the theory of RBV
(The definitions from [BAMBERGER & WRONA](#) and [FREILING](#) are translated by the author.)

source	understanding of the term “resource”
Fayerweather (1982) , p. 50	“[...] resources are considered to fall into six categories [...] natural resources, capital, labor and technological, managerial and entrepreneurial skills.”
Wernerfelt (1984) , p. 172	“[Resources are] anything which could be thought of as a strength or weakness of a given firm.”
Grant (1991) , p. 118	“[Resources] are inputs into the production process [...]”
Barney (1991) , p. 101	“Firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness.”
Amit & Schoemaker (1993) , p. 35	“[Resources] will be defined as stocks of available factors that are owned or controlled by the firm.”
Black & Boal (1994) , p. 134	“Resources can be viewed as a configuration or network of factors.”
Barney (1995) , p. 50	“A firm’s resources and capabilities include all of the financial, physical, human, and organizational assets used by a firm to develop, manufacture, and deliver products or services to its customers.”
Bamberger & Wrona (1996) , p. 132	“The term [resource] covers a wide range, so almost all internal tangible and intangible goods, systems, and processes can be defined as internal resources.”
Capron & Hurland (1999) , p. 42	“[Resources are] stocks of knowledge, physical assets, human capital, and other tangible and intangible factors that a business owns or controls [...] which enable the firm to produce efficiently and/or effectively [...]”
Freiling (2001) , p. 22	“Resources [...] are input goods which are developed into the firm’s own competences through certain processes and can not be imitated by the competitors for a long time.”

SMEs need to actively seek resources both internally and from their external networks in their internationalization process.¹²

New MNEs have similar disadvantages as SMEs. In general, it is accepted that new MNEs are at a disadvantage compared to MNEs from developed countries. In terms of ownership advantages, MNEs from developed countries tend to be stronger in the areas such as branding, advertising, and technology, so the government or customers in the host country often prefer products from the developed country MNEs.¹³ Only in the case of entering a developing country, especially a less developed country, new MNEs might have competitive advantages compared to the MNEs from developed countries.¹⁴ However, the focus of this thesis is new MNEs entering developed markets, where they are at a disadvantage in terms of internal resources when compared to the MNEs from developed countries. What they have is a number of country-specific advantages, for example the MNEs from China have a plentiful supply of liquid assets.¹⁵ However, globalization has enabled firms from emerging countries to seek resources, so they can actually start their FDI even before they become large and well established firms.¹⁶ Therefore, by generating and bundling adequate internal and external resources, a new MNE can gain competitive advantages to help them compete in a developed market. Taking a look back at Figure 4.9 on page 39, the two paths indicate that, unlike MNEs from developed countries, the new MNEs are following or should follow the path which focuses more on gaining resources.

In addition to the application of RBV in the research field of internationalization, it has also been applied in the research field of logistics and SCM. For example, GADDE *et al.* suggest that a resource-based approach could complement the more commonly used activity approach in logistics research.¹⁷ Based on the resource-based view that “a firm is basically a collection of resources”,¹⁸ JAHRE & FABBE-COSTES claim that “a supply chain or a logistics network is basically a set of more or less closely connected resources”¹⁹ and they took resources as starting point for their study.²⁰ In line with PENROSE, distribution management can be considered basically as the management of a set of more or less closely connected resources in a distribution network.

Based on the analysis above, RBV will be applied as an explanatory theory for studying the IDM of new MNEs in their internationalization.

¹² See Chetty & Agndal (2007); Elango & Pattnaik (2007).

¹³ See Cuervo-Cazurra & Genc (2008), p. 959 and the cited literature.

¹⁴ See Hoskisson *et al.* (2000), p. 256; Cuervo-Cazurra & Genc (2008), p. 960.

¹⁵ See Dunning *et al.* (2008), p. 10. BUCKLEY *et al.* raise up several more ownership advantages of Chinese MNEs which is described in the end of Chapter 7.3 on page 99.

¹⁶ See Mathews (2006), p. 22–23.

¹⁷ Logistics and SCM literature and practices tend to start with the activities to be performed, then design the processes, and finally identify the resources to use. Resources are not in the focus of consideration, but are considered as tools.

¹⁸ Penrose (1959), p. 77.

¹⁹ Jahre & Fabbe-Costes (2005), p. 146.

²⁰ See Jahre & Fabbe-Costes (2005). For other studies in the logistics and SCM field using resource-based approach, see for example Jahre & Hatteland (2004).

7.1.2 MBV as the explanatory theory

The RBV of a firm suggests that a firm should first exploit resources they already control when choosing and implementing strategies. However, this may not always explain how a firm gains competitive advantages, especially for the case of new MNEs entering developed market, who usually do not possess unique resources internally compare to the MNEs from developed countries. Their target market — a developed market — has a very different environment from their domestic market or other developing markets, so using only RBV can not give a complete explanation to the phenomenon. Another complementary explanatory theory is needed to take the market environment into account.

The concept of a **market** is also introduced in the theories of internationalization described in Chapter 4.2.2 on page 21. For example:

- In DUNNING's eclectic theory, the location advantage focuses on the market environment.
- CANTWELL & TOLENTINO's concept of technological accumulation explains why developed markets attract new MNEs.
- MACHARZINA & ENGELHARD developed the GAINS model and claim that the internationalization process is not always incremental, but revolutionary. The trigger for such changes are the constant changes of market environment.²¹

The concept of MBV was originally developed from industrial economics and the traditional structure-conduct-performance paradigm, which was introduced by MASON and BAIN.²² The core statement is that the success of a firm is defined by the characteristics of the competitive environment, so market-oriented management focuses on the external environment of a firm, such as the structure of the industry or sector. Based on the concept of MBV, PORTER developed the five forces competition model, including competitive rivalry within the industry, threat of new entrants, threat of substitute products or services, bargaining power of customers, and bargaining power of suppliers (see Figure 7.1).²³ MEFFERT argues that market orientation means managing the firm based on the market requirements and this includes orientation of customers and competitors.²⁴ In addition to general strategic management, the MBV has also been applied in the research field of internationalization.²⁵

This study focuses on the outward FDI of new MNEs (from China in the case study) into developed markets, such as Western Europe or North America. These developed markets have very different characteristics from the Chinese market or other neighboring developing markets, where Chinese firms often start their internationalization. In the field of distribution logistics, new MNEs are facing different customers' requirements, infrastructure, culture, a longer

²¹ The GAINS model is not introduced in Chapter 4.2.2 due to the limited length of the thesis. GAINS refers to "Gestalt Approach to International Business Strategies". For more details about GAINS, see Macharzina & Engelhard (1991).

²² See Mason (1939); Bain (1956).

²³ See Porter (1979), p. 141.

²⁴ See Meffert (2002), pp. 3–4.

²⁵ See for example Bode (2009), pp. 55–61.

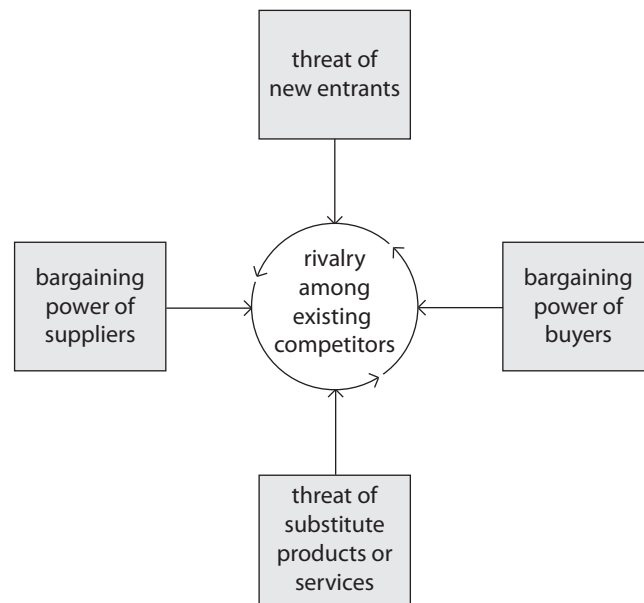


Figure 7.1: The five forces shaping competition in an industry
(Source: [Porter, 2008](#), p. 27.)

transport chain, etc. Such different market environment influences new MNEs' decisions in their internationalization and in their distribution management. Because of this, MBV will be applied together with RBV as the explanatory theories.

7.1.3 Combination of RBV and MBV

In MBV, the firm itself is not the focus of observation, the focus is on how the external market environment influences the strategies for gaining competitive advantage. In RBV, the focus is not the external environment, but how the resources and capabilities of a firm influence its strategies to gain competitive advantage. Although these two theories seem to be the opposite of each other, the combination of RBV and MBV has been discussed in numerous publications.²⁶ RBV and MBV have two different but complementary perspectives of a firm — its internal configuration and external conditions. Figure 7.2 shows the combination of MBV and RBV into a structure-resource-conduct-performance model.²⁷

In order to develop successful strategies, a firm's internal situation (strengths and weaknesses) and its external situation (opportunities and risks) need to be identified. RVB and MBV fit well with the SWOT analysis (see Figure 7.3). Using SWOT analysis to find out suitable strategies will be discussed in Chapter 15.2.1 on page 202. In the following two sections, the resources and market for IDM of Chinese firms will be analyzed, starting with the market environment,

²⁶ See [Bode \(2009\)](#), p. 76.

²⁷ The structure-conduct-performance paradigm in the figure is an extended model of PORTER. The arrows show that, on one hand, the structure of an industry impacts the firm's strategy and its performance, on the other hand, a firm's strategic behavior may change the structure of the industry. The gray arrow shows that there is no strong backward influence from performance on conduct. The resource-conduct-performance paradigm in the figure shows that the resources of a firm have an impact on its strategy and its performance. Vice-versa, a firm's conduct can influence its resources as well.

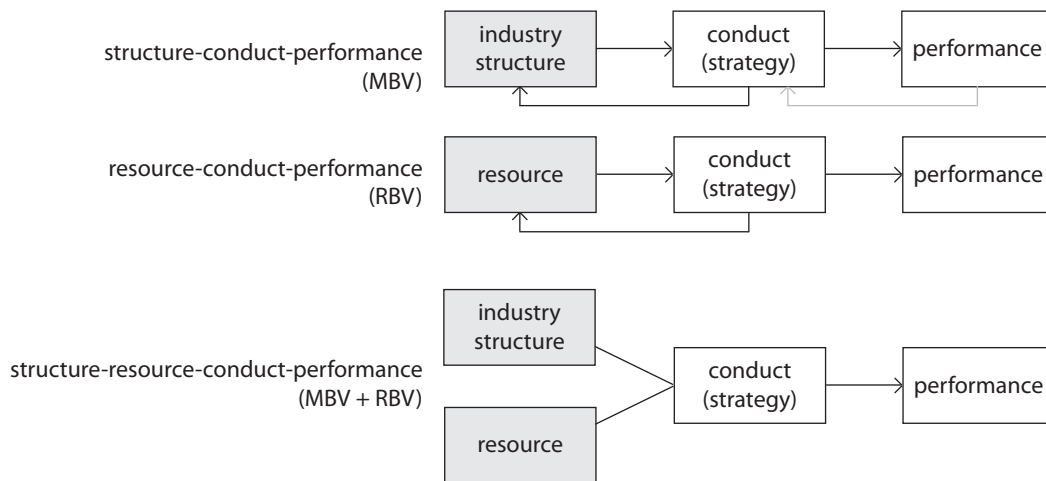


Figure 7.2: The combination of MBV and RBV in strategic management
(Compiled together by the author. Sources of the three parts in the figure from top to bottom are Porter, 1981, p. 616; Miroschedji, 2002, p. 149; Zentes *et al.*, 2004, p. 33.)

with a focus on the European/German market, and followed by an analysis of the resources of Chinese firms, since the market condition provides a framework for managing resources.

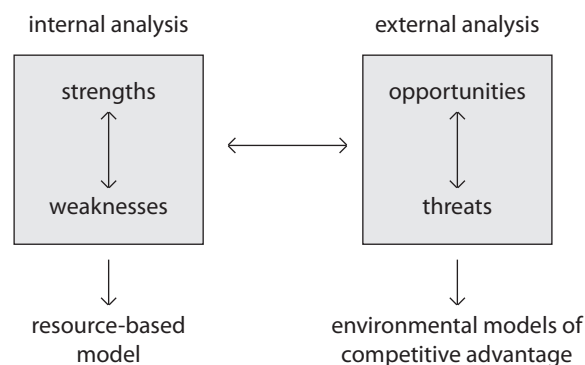


Figure 7.3: The relationship between SWOT analysis, RBV, and MBV
(Source: Barney, 1991, p. 100.)

7.2 Market analysis for IDM of Chinese firms

This section will present an analysis of the market environment of Chinese firms' foreign investment. Since the case study in the following chapters will focus on the German market, the market analysis will also focus on Europe and Germany — starting with a general analysis, and then focusing on the field of distribution later. Since every market is different, even between developed countries, it is not possible to analyze all markets in this thesis.

7.2.1 Characteristics of China's target markets – Europe/Germany

The concept of the EU can be traced back to the speech of Sir Winston Churchill on September 19, 1946.²⁸ As of 2007, there are altogether 27 member states in the EU. From the economic point of view, EU forms a single European market for all the member states, with free movement of goods, services, monetary capital, and (partially) people.²⁹ Another objective of EU is to have a customs union, which applies a common external tariff on all goods entering the market. Once goods enter the EU market, there are no more customs duties, discriminatory taxes, or import quotas, as they travel internally.³⁰ The single market is ensured through a standardized system of laws and common policies on trade, agriculture, fisheries, and regional development. Moreover, the EU also includes a eurozone, where the Euro is used as the only currency in many countries in the EU.³¹ As illustrated in Figure 7.4, when considered as a single economy, the EU generated and estimated nominal GDP of US\$ 16.45 trillion in 2009, which makes it the largest economy in the world by nominal GDP.³² EU is also the largest exporter³³ and importer³⁴ of goods and services, and the biggest trading partner of several large emerging countries such as China and India.³⁵

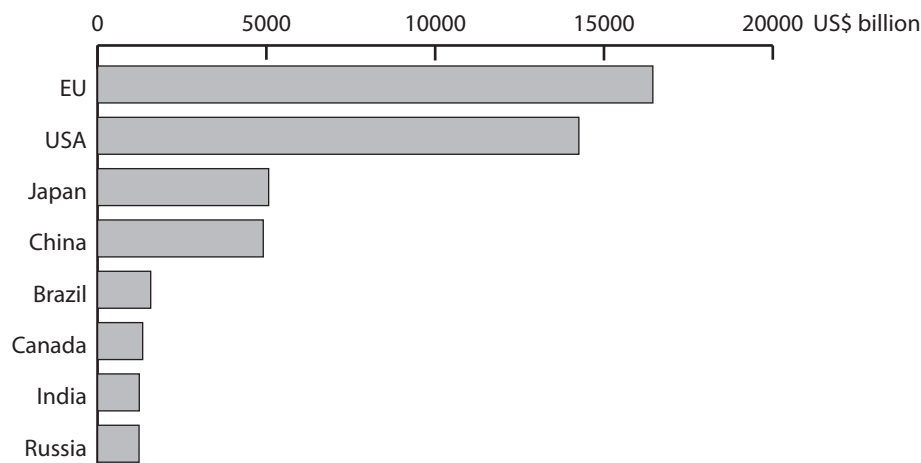


Figure 7.4: EU and the next seven largest economies in the world according to nominal GDP
(Source: [European Commission, 2010b](#).)

Although these member states form a single market, there are still big differences in economic development between them. The western part is much more developed than the eastern part. There is a trend of relocating production sites from the Western European countries to the eastern part due to lower cost. In addition to the economic difference, most nations in the EU have their own language and cultural background.³⁶ The pattern of consumption, customers'

²⁸ For more details about the history of the EU see [Dülfer & Jöstingmeier \(2008\)](#), p. 34–35.

²⁹ It includes the abolition of passport controls by the Schengen Agreement between 22 EU member states and 3 non-EU states.

³⁰ Four non-EU member states Iceland, Norway, Liechtenstein and Switzerland participate in the single market, but not in the customs union. See [European Commission \(2010b\)](#).

³¹ So far, 16 EU member states have adopted euro as their currency. See [European Commission \(2010a\)](#).

³² See [European Commission \(2010b\)](#).

³³ See [CIA \(2007\)](#).

³⁴ See [WTO \(2009\)](#).

³⁵ See [Grant \(2006\)](#); [Anonymous \(2007\)](#).

³⁶ At the moment, there are 23 official and working languages. German is the most widely spoken mother

requirements, and national regulations³⁷ can vary. These differences can cause difficulties for new MNEs entering these markets.

Since the reunification of Germany in 1989, large investments were made in order to improve manufacturing plants, infrastructure, residential buildings, etc., in an attempt to bring the eastern part to the same level as the western part. This had a negative influence on the economic development of Germany during that period. Despite discussions about whether Germany is losing its attractiveness as a location where industry would invest and produce,³⁸ it is still the largest economy in EU, accounting for 20% of the total GDP. In terms of population, Germany accounts for 17% of the EU's total population and therefore has a high share of total purchasing power in the EU.³⁹ It also has a social market economic system, which combines free competition with a high level of control from the government. It is currently the third biggest investment destination.⁴⁰ Figure 7.5 shows the main attractive and unattractive features of the German market.

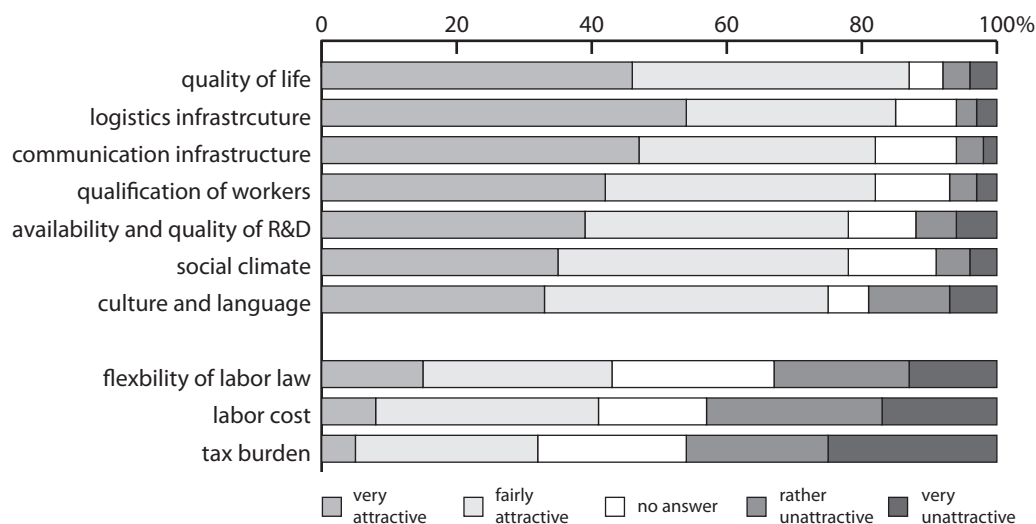


Figure 7.5: Strengths and weaknesses of Germany as an investment destination
(The figure illustrates the seven most and the three least attractive factors from Englisch, 2010, pp. 22–23.)

Germany has a central location in Europe and a highly developed logistics infrastructure. After the fall of the “Iron Curtain” and the integration of new member states from Eastern Europe into EU, Germany became the most important transit country in Europe, and its advanced logistics infrastructure helps it perform this transit function. The logistics aspects of the German and European market will be discussed in detail in Chapter 7.2.2 on the facing page. Although this figure ranks culture and language as attractive for Chinese investors, there is usually a big cultural difference.⁴¹ In addition to the listed factors, Germany welcomes foreign investment

tongue.

³⁷ For example, the allowable weight for trucks, the highway toll charges, or the legal working time often differ from country to country.

³⁸ See Ostermann & Schmidt (1998), pp. 65–66.

³⁹ See Germany Trade & Invest (2010a).

⁴⁰ In 2009, UK and France were ranked as the top two destinations for foreign investment. See Englisch (2010), p. 29.

⁴¹ See Hofstede & Hofstede (2006), p. 147.

by having no difference in taxation between domestic and foreign firms. However, there are no special motivation measures for foreign investment either.⁴²

When a new MNE enters one European country, it usually aims to cover several EU countries, and Germany has often been used as a springboard for expanding into the European market. Therefore, it is always useful to view the EU as one single market but with consideration of regional characteristics.

7.2.2 Distribution network in Europe

The integration of separate markets into one single European market made a pan-European logistics system possible. Some of the expected advantages of such a system are:⁴³

- standardized products for the whole European market,
- shortened transport time in the distribution of goods,
- possibility of cross-border order processing,
- reduction of transport costs through more intensive competition in the international transport market,
- setting up new lower cost production and/or warehouse sites.

With the expansion of the EU, firms can consider more natural market demand patterns instead of on a country-by-country basis. They can also adapt their logistics systems accordingly, for example by reducing the number of warehouses.⁴⁴ Warehouse locations are not dependent on a particular country anymore, but depend on the firm's market in Europe and the product types. Whether the distribution system is centralized or decentralized, a standard IT system for the operation in whole Europe is necessary for managing the warehouses and inventory. TAYLOR claims that it is a complex process for a firm with already established country-based distribution system to change it into a pan-European system,⁴⁵ but for new MNEs who are entering European market, such a distribution system should be planned from the very beginning.

Centralization of warehouses in the European market is a process which has been applied in practice during the last decade. However, LASGAA points out the growing demand for differentiation in customer service level based on product groups and/or through distribution channel, so having only one centralized warehouse may lead to not being able to meet the demand. Based on products and the demanded delivery time, HOPPE & CONZEN differentiate four types of distribution network: decentralized national network, country-specific central warehouses, regional network, and a pan-European centralized warehouse.⁴⁶ LASGAA claims that a hybrid model —

⁴² See [Germany Trade & Invest \(2010b\)](#).

⁴³ See [Vahrenkamp \(2007\)](#), pp. 141–142.

⁴⁴ See [Browne et al. \(2007\)](#), p. 355. In addition to having a “single European market”, there are other factors which make a centralized warehouse possible, for example the well-developed transport infrastructure and the geographical size. Europe is the world's second-smallest continent in terms of area, covering about 10.4 million km².

⁴⁵ See [Taylor \(1997\)](#), pp. 30–32.

⁴⁶ For details about these four types of distribution network see [Hoppe & Conzen \(2002\)](#), pp. 24–34.

a central warehouse supported by satellite facilities — supports the strategy of customer service differentiation and works the best in Europe.⁴⁷ Figure 7.6 illustrates a hybrid model between a centralized and decentralized distribution network.

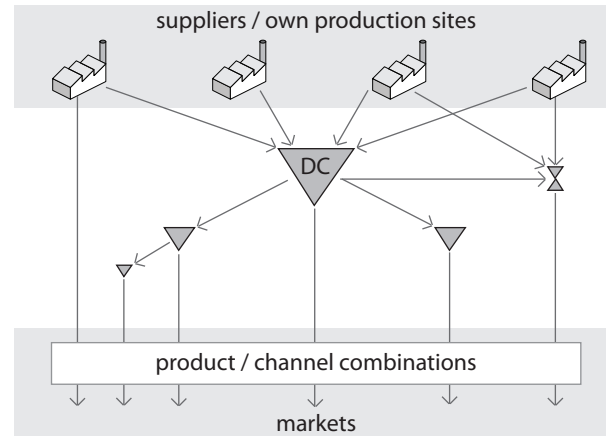


Figure 7.6: Hybrid model of the European distribution network
(Source: Lasgaa, 2007, p. 59.)

In addition to the trend of centralization of warehouses, another move is the relocation of not only manufacturing but also distribution to the eastern part of the EU. Due to the relocation of production to Eastern Europe, Central and Eastern Europe is expected to become a new location for distribution.⁴⁸ However, if the main sales market is in Western Europe, the transport time from Eastern Europe can be too long. Moreover, the rent cost in Eastern Europe does not offer a large advantage. Having a distribution center in Eastern Europe makes sense when the production takes place there, or many value-added services with low technical requirements need to be carried out.⁴⁹ So far, Germany is still one of the most favorable countries for setting up a DC. Germany has a very efficient distribution system and has often been considered a test market by foreign firms who want to introduce their new products into the European market.⁵⁰ Since it is located at the geographical center of EU, a large part of Europe is accessible from Germany within 24 hours by truck. Germany also has a highly developed logistics sector with more than 2.7 million employees and an estimated volume of €220 billion in 2008.⁵¹

The trend of concentration can also be found in the logistics sector. On one hand, firms tend to use fewer LSPs as system partners — single or double sourcing; on the other hand the logistics sector is consolidated to have fewer but larger LSPs, who can offer pan-European logistics services.⁵² The logistics sector is more developed than in developing countries, and the degree of outsourcing has been increasing in the last years. Primary logistics activities, such as transport and warehousing are generally outsourced to LSPs. Inventory management, order management, or supply chain network design are partly outsourced, but by much fewer firms.⁵³

⁴⁷ See Lasgaa (2007), pp. 57–59. For more about customizing logistics network to the service requirement see Anderson *et al.* (2007), pp. 42–43.

⁴⁸ See Browne *et al.* (2007), p. 357–358.

⁴⁹ See Müller-Daupert & Jezusek (2004).

⁵⁰ See Täger (2006), p. 92.

⁵¹ See CSCMP (2010), pp. 11–12.

⁵² See Vahrenkamp (2007), p. 148.

⁵³ See Straube & Pfohl (2008), p. 24.

Concerning service level, European customers' demands are in general higher than the ones in developing countries. However, the level can vary in different countries, for example the expectation of delivery time is generally higher in Germany, Austria, and Switzerland than in France and Italy, and in Spain and Portugal it can be even lower.⁵⁴ In addition to high expectations concerning the basic four elements of delivery service (see Figure 5.5 on page 49) and low cost, customers can demand even more from a supply chain, for example:⁵⁵

- sustainability — ability to control resource consumption and ensure that it is minimized both today and in the future,
- resilience — ability to identify, monitor, and reduce supply chain risks,
- innovation — ability to provide critical customers with new ways of distributing products.

7.3 Resource analysis for IDM of Chinese firms

As described in Table 7.1 on page 90, there have been intensive discussions about what “resources” are. In order to systematically analyze the resources of Chinese firms for managing their international distribution, the categorization from BARNEY & CLARK will be applied, since it attempts to summarize a variety of resources in a convenient way, and is easy to apply.⁵⁶ Resources that a firm could possess can be classified into four categories:⁵⁷

- physical capital resources, such as physical technology, plants and equipment, geographic location, access to raw materials, trade contracts, etc.,
- financial capital resources, such as revenue, debt, equity, retained earnings, etc.,
- human capital resources, such as training, experience, judgment, intelligence, knowledge of technology, relationships, insight of individual managers and workers, etc.,
- organizational capital resources, such as culture, reporting structure, formal and informal planning, controlling, and coordinating systems, reputation, brand name, efficient procedures, relations among groups within a firm and between a firm and those in its environment, etc.

Moreover, according to the definitions of AMIT & SCHOEMAKER and BLACK & BOAL, resources include not only self-owned resources, but also controlled external resources, or a network of factors, for example the know-how of suppliers, distributors, or service providers. In the following, the situation of Chinese firms' resources for IDM will be analyzed in these four categories based on available publications.⁵⁸

⁵⁴ See Hoppe & Conzen (2002), p. 31.

⁵⁵ See Melnyk *et al.* (2010), pp. 34–37.

⁵⁶ Since the focus of this thesis is not the theory of RBV, there is no deeper critical discussions about the different understanding or application of RBV.

⁵⁷ See Barney & Clark (2007), p. 24. For examples of resources listed in the following categories and more other examples, see Wernerfelt (1984), p. 172; Hall (1992), p. 135; Cho & Pucik (2005), p. 556; Barney & Clark (2007), p. 24.

⁵⁸ It is argued in Chapter 8 on page 104 that the analysis in this section is not sufficient due to the limited number of available publications in this field. This is the reason why a descriptive research is necessary, which

Physical capital resources

The traditional goal of Chinese firms is to establish a small and complete company and this mind-set is still deeply entrenched. Seven percent of China's commercial firms and 53% of industrial firms own their vehicle fleet, while 80% and 59% own warehouse facilities, respectively. That is why only a fraction (1.5 – 4%) of China's logistics market is outsourced to service providers compared to 40 – 50% in Europe.⁵⁹ The pressure of cost cutting and service expansion in order to remain globally competitive are forcing Chinese firms to concentrate on their core business rather than establishing a complete firm.⁶⁰ China's logistics market is still small but is expected to grow with a rate of 20 – 30% annually in coming years, due to increasing interest and demand for 3PL from foreign and Chinese firms.⁶¹ This development will, in turn, push Chinese firms to rethink their approach towards logistics outsourcing. Some private Chinese firms, especially ones that are entering foreign markets, have already started to rely on LSPs,⁶² and Chinese shipping firms are expanding their network abroad.⁶³ This offers Chinese manufacturing firms the possibility of using domestic shipping firms for international transportation. More transport infrastructure from the Chinese side supports the goods flow between China and Europe. For example, Jade Cargo flies regularly from Shenzhen to Leipzig.⁶⁴ For inter-continental transport, Chinese firms usually use a number of LSPs for different transport modes and for different markets.⁶⁵

Apart from international transport activity, which is almost completely outsourced to LSPs, Chinese firms need to cooperate with LSPs in their foreign markets as well. Chinese firms mostly have no distribution or service channels in foreign markets. That is why acquisition might be an easier and faster way, and has often been used by Chinese firms to overcome the disadvantage — to use the available distribution network.⁶⁶

IT technology for communication with supply chain partners is not well developed yet in Chinese firms, and traditional means such as email, telephone, and fax are used for communication. Electronic data interchange (EDI) and WebEDI are not commonly used by Chinese firms, but many Chinese firms have introduced production planning and control system (PPS), warehouse management system (WMS), and enterprise resource planning (ERP) for internal management.⁶⁷

will be described in Chapter 9 on page 109.

⁵⁹ See Janetzko (2004), p. 4.

⁶⁰ See Bolton & Liu (2006), p. 9.

⁶¹ See Hong *et al.* (2004), pp. 21–22.

⁶² See Hong & Liu (2007), p. 58.

⁶³ For example, COSCO has its European headquarter in Hamburg and it manages more than 40 offices and subsidiaries of COSCO container lines in and around Europe. Even during the financial crisis, COSCO has managed to strengthen its investment in Italy. See Richter (2009), p. 11.

⁶⁴ See Siegmund (2007), p. 9.

⁶⁵ See Straube *et al.* (2008), p. 19.

⁶⁶ See Shen & Wang (2010), pp. 1318–1319. The increasing volume of M&A of Chinese firms is shown in Figure 6.10 on page 81.

⁶⁷ See Böhnlein & Meier (2009), pp. 51–53.

Financial capital resources

In terms of financial aspects, Chinese firms have some advantages, as they can get cheap financing from Chinese state-owned banks. Another advantage is the ability to keep production in mainland China, where labor cost is still low, but sell in the expensive European market. In order to increase the profit margin, controlling and reducing logistics costs is of strategic importance. Figure 7.7 shows that Chinese firms have much higher logistics costs in general than European firms, so there is still big potential for Chinese firms to reduce logistics costs, especially for Chinese firms who want to enter the European market and compete against European firms.

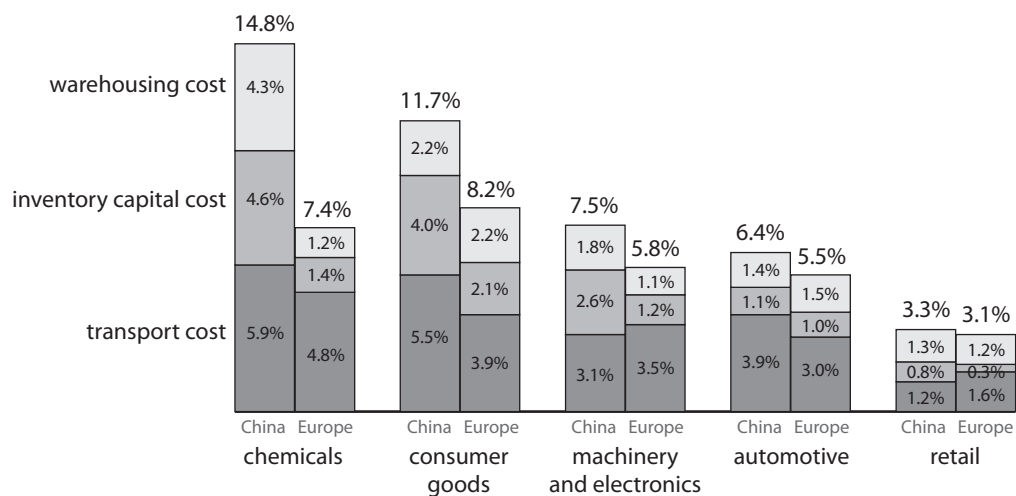


Figure 7.7: Comparison of logistics costs of Chinese and European firms in different sectors (Source: A. T. Kearney & GSCM, 2010, p. 30. Data show the percentage of average logistics costs in the sales in 2008.)

Apart from reducing costs to gain financial capital resources, logistics can create financial value by reducing the cost of working capital (such as cash-to-cash cycle) and immovable assets (such as logistics estate).⁶⁸ Outsourcing to LSPs can be a good solution for achieving flexibility in financial capital, because firms do not need to invest their own resources into immovable assets, such as DC, facilities, vehicles, and logistics personnel.

Human capital resources

A Chinese firm usually has half of its suppliers' network directly next to it and has very limited international processes.⁶⁹ Due to this reason, Chinese firms also do not have enough international logistics know-how. According to the survey of BÖHNLEIN & MEIER, Chinese firms have only recently started to recognize the importance of SCM, and have insufficient practical experience and even less theoretical knowledge about SCM.⁷⁰ For entering developed market

⁶⁸ See Gomm (2008), p. 280.

⁶⁹ See Zedtwitz (2005), p. 52.

⁷⁰ See Böhnlein & Meier (2009), pp. 46–47. The systematic education in the field of logistics and SCM started in the beginning of this century. Most practitioners in the industry now did not have the educational background, but gained their experiences though learning by doing.

with more complex and more mature supply chains, Chinese firms need to gain more knowledge and experience in order to fulfill the market requirements.⁷¹ Cooperation with local experienced LSPs may help to overcome the weakness of lacking know-how in international logistics.

There are some general advantages in human capital resources of Chinese firms, not limited to the logistics field, for example:

- Chinese employees as well as Chinese firms are more flexible due to their cultural background.⁷²
- Chinese employees are in a way more “hardworking” due to the strong competition in the job market.⁷³
- Chinese employees are eager to learn from developed countries.⁷⁴
- It is relatively easy to find employees with Chinese background abroad due to the long history of immigration to developed countries.

Organizational capital resources

Along with international expansion, a firm’s organizational structure needs to be adjusted for international business. [STABERHOFER *et al.*](#) claim that an organizational form needs to be supply chain oriented in order to be fit for the international supply chain. According to the focus of a firm’s strategy — customer-orientation, process-orientation, flexibility of transformation, or inter-organizational networking — there are different suitable organizational structures.⁷⁵ Chinese MNEs, who are in the beginning of their internationalization, are still learning and seeking the most suitable organizational form.

In managing international distribution, and especially the cooperation with supply chain partners, access and control of distribution networks become the key for the internationalization of Chinese firms.⁷⁶ In the survey of [BÖHNLEIN & MEIER](#), half of the questioned firms have implemented some type of supply chain controlling tools.⁷⁷ Another important issue in international management is standardization of processes. Most Chinese firms do not have standard and structured processes in internationalization yet, and instinct is considered to be very important for Chinese management.⁷⁸

⁷¹ See [A. T. Kearney & GSCM \(2010\)](#), p. 7.

⁷² The flexibility can sometimes be the result of no long-term planning which, on the other hand, is a disadvantage.

⁷³ The statement describes only the average situation. The working and private life of Chinese are not strictly separated. Working overtime is common and not protected by the workers’ union. The high competition, constant sense of crisis, and also great potential for career development push Chinese employees to work harder.

⁷⁴ Chinese respect the advanced technology and management system of the developed countries and are willing to learn, but often the Chinese like to learn on their own and do not enjoy being taught, which is related to the importance of saving face in the Chinese culture.

⁷⁵ See [Staberhofer *et al.* \(2006\)](#), pp. 49–51.

⁷⁶ See [Jin \(2009\)](#), p. 24.

⁷⁷ See [Böhnlein & Meier \(2009\)](#), pp. 64–65. The result is actually surprisingly high. However, details about the controlling tool were not asked in the survey. Moreover, the survey suffered from a relatively low return rate.

⁷⁸ See [Straube *et al.* \(2008\)](#), pp. 48–49.

BUCKLEY *et al.* consider the ownership advantages of Chinese MNEs to be flexibility and the ability to engage in beneficial relations with firms and other actors in order to provide access to resources controlled by others. The latter advantage may be revealed as networking skills and may be linked to the Chinese diaspora in the case of Chinese firms.⁷⁹

⁷⁹ See Buckley *et al.* (2007), pp. 502–503.

Chapter 8

Summary: conceptual framework of Chinese firms' IDM

Part II has provided a theoretical framework for this study. As illustrated in Figure 8.1, based on the discussion of internationalization theories in Chapter 4, distribution management in Chapter 5, and the internationalization of Chinese firms in Chapter 6, a theoretical framework is set for the research on the IDM of Chinese firms entering developed markets. The theories of RBV and MBV of a firm are adopted as explanatory theories to explain the concepts¹ for efficient IDL systems.

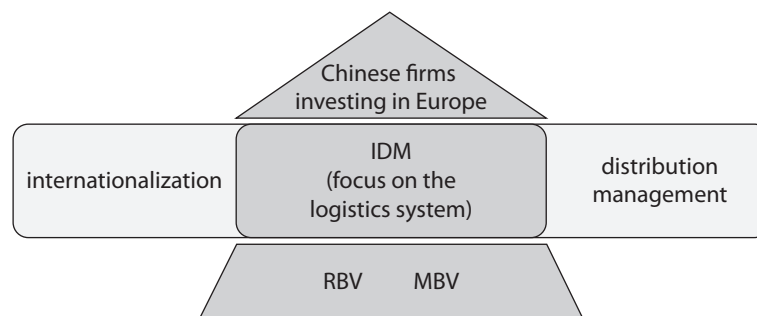


Figure 8.1: Theoretical framework of IDM for Chinese firms investing in European market

The result of the analysis in Part II is the conceptual framework presented in Figure 8.2. Conceptual framework plays a central role in a research process, as well as in the final analysis.² MERRIAM argues that a conceptual framework affects every aspect of the study, from determining how to frame the problem and purpose to how the data are collected.³ RÖSSL claims that a conceptual framework should provide structured understanding of the background of the research and all the relevant determining factors.⁴ The conceptual framework for this study shows

¹ Concepts of a theory are the variable characteristics of the object of a study. Concepts can be defined precisely and in detail as variables. See Dul & Hak (2008), p. 35. For a detailed description of concepts and variables see Chapter 9.1 on page 109 and Chapter 13.1 on page 169.

² See Bloomberg & Volpe (2008), p. 58.

³ See Merriam (1997), pp. 44–67.

⁴ See Rössl (1990), p. 99.

that the resources of a new MNE (independent concept) effect the success of its IDL system (dependent concept) while entering a developed market. The dependent concept in resource-based theory is generally identified as competitive advantage. According to [PETERAF & BARNEY](#), a firm has a competitive advantage “if it is able to create more economic value than the marginal (break even) competitor in its product market”, and economic value is “the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise”.⁵ Thus the dependent concept includes two parts — the consumer surplus based on logistics services, and the producer surplus based on logistics costs. The market (moderator concept) influences the strategic importance of IDM in a firm’s internationalization, which is both the trigger and restriction that influence the management of resources and its success.

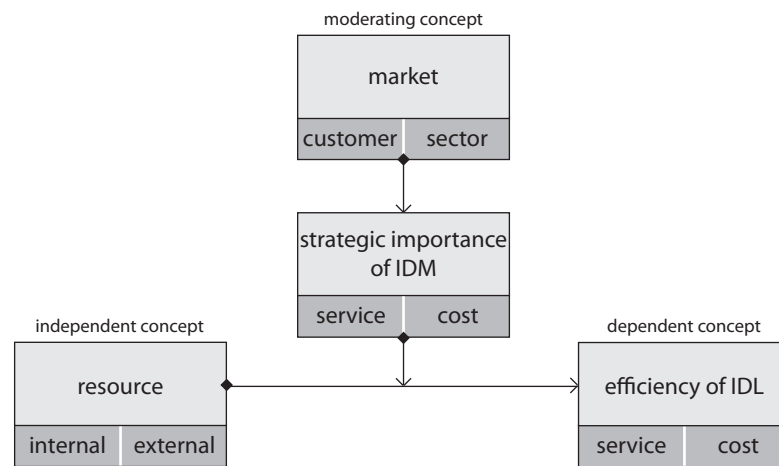


Figure 8.2: Conceptual framework of IDM for Chinese firms investing in European market

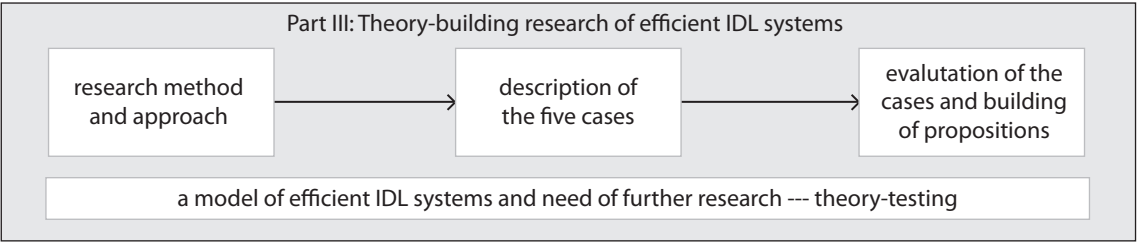
However, as already mentioned in Chapter 1.2 on page 3, there is insufficient research available about this topic. Very few empirical studies have been conducted with firms from China or other emerging countries about their distribution management in the internationalization. The conceptual framework can not be further refined with concrete concepts and propositions,⁶ so the analysis in Part II can only partly answer the research questions and can not provide a whole picture of this topic. Moreover, based on the analysis in Chapter 7.3 on page 99, Chinese firms possess very few resources, which are inimitable and rare for international distribution. Why or how are some Chinese MNEs still on their way to becoming new global challengers? What resources do these Chinese MNEs have to react to challenges in developed markets? According to [MATHEWS](#), new MNEs use the opportunity of internationalization to gain resources. The process of internationalization is also a process of building internal resources and seeking external resources that can be used and controlled. Does it also apply to Chinese MNEs and how do they manage this process? In order to answer these questions and to refine the conceptual framework into detailed propositions, an exploration of practice — descriptive research and theory-building research — is necessary. The purpose of theory-building research is to find the independent concepts and their relation to the dependent concepts, which will be done in Part III.

⁵ [Peteraf & Barney \(2003\)](#), p. 314.

⁶ A proposition is a statement about the relation between two concepts. See [Dul & Hak \(2008\)](#), p. 35. For a detailed description about propositions and hypothesis, see Chapter 9.1 on page 109 and Chapter 13.1 on page 169.

Part III

Theory-building research of efficient IDL systems



Chapter 9

Research method and approach

As described in Chapter 1.3 on page 5 and the end of Chapter 8 on page 104, the research questions addressed in this thesis are “what”, “why”, and “how” questions. Case study methodology supports the explanatory nature of research questions and is suitable for answering “what”, “why”, and “how” questions.¹ The first section of this chapter will explain the case study methodology for theory-building research. The following sections will then describe the research approach for this part of the study, including case selection, data collection, and design of interview questions.

9.1 Theory-building through a comparative case study

DUL & HAK differentiate between three types of activities which contribute to theory development:²

- **Exploration** is the collection and evaluation of relevant information from different practical and theoretical sources, in order to assess how research can best contribute to the development of theory.³ The result of the exploration of theoretical sources for this study has been described in Part II. The result of the exploration of practical sources for this study will be described in Chapter 10 on page 117.
- **Theory-building research** is a study which attempts to formulate new propositions based on the evidence drawn from empirical studies. This research activity will be described in this Part.
- **Theory-testing research** is aimed at testing the formulated propositions, which are generated either from the study of available theories or from empirical studies. This research activity is the topic of Part IV and will be discussed in detail in Chapter 13.1 on page 169.

¹ See Yin (2009), pp. 8–10.

² See Dul & Hak (2008), pp. 38–39.

³ Exploration is not considered to be research.

As described in Chapter 8 on page 104, exploration of available information from theoretical and practical publications has shown that the phenomena in the object of this study⁴ can not be fully and clearly explained by existing theories. This means that theory-building research is needed in this step to (re)formulate propositions.

Before discussing a suitable research methodology for this study, the definitions of terms used in the following research process should be clarified.

Table 9.1: Definitions of relevant terms in research methodology
(Source: [Dul & Hak, 2008](#), pp. 34–36; [Lee & Lings, 2008](#), pp. 115–128.)

term	definition of the terms
theory	A theory is a logical model which describes and explains how related phenomena behave. In the research process, a theory can be presented as a set of propositions about the object of study.
proposition	A proposition is a statement which formulates causal relations between two or more concepts of the object of study. Both the existence of a relation and the type of relation between the concepts need to be stated.
causal relation	A causal relation is a relation between two concepts of the object of study. In a causal relation, a value of concept A permits or leads to a value of concept B.
concept	A concept is a variable characteristic of the object of study. Concepts need to be defined precisely using measurable variables.
conceptual model	A model is a descriptive representation of a theory. In the research process, a conceptual model can be a visualized representation of how the concepts of theory are related to each other, or basically the visualized propositions of a theory.
domain	A domain is a specification of boundaries of the instances for the object of study. The propositions are believed to be true within these defined boundaries.
population	A population is a set of instances within the domain for the object of study. One or several instances from the population are selected for a case study.

The purpose of the theory-building research in this part is to determine unknown independent concepts and/or the relation between the independent and dependent concepts. The concepts and theoretical elaborations emerged out of data collection through an inductive approach.⁵ Qualitative research can be a more suitable methodology for inductive research than quantitative research. It can be used when relatively little is known about the phenomenon, or to gain new perspective on some well-understood issues.⁶ It can also be used to develop concepts and

⁴ The object of this study is defined in Chapter 2.1 on page 7.

⁵ See [Bryman \(2007\)](#), p. 425.

⁶ See [Strauss & Corbin \(1998\)](#), p. 11.

propositions which might later be quantitatively tested.⁷ Case study methodology is strongly associated with qualitative research. DUL & HAK suggest that comparative case study research is suitable for research of proposition building.⁸ A **case study** is defined as follows:

A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context [...]⁹

A case study is a study in which a) one case (single case study) or a small number of cases (comparative case study) in their real life context are selected, and b) scores obtained from these cases are analyzed in a qualitative manner.¹⁰

The single case study method can be used when it represents the critical case in testing a well-formulated theory, an extreme case, a unique case, a typical case, a revelatory case, or when it is a longitudinal case.¹¹ Comparative case study is often considered to be more compelling and robust. However, conducting a comparative case study is more resource and time consuming.¹² For this study, comparative case study research is more suitable for studying several Chinese firms in different sectors, in order to:

- describe concepts which may be relevant for the propositions and¹³
- identify more detailed independent concepts and their relation to the dependent concept.

9.2 Selection of cases

As mentioned in previous chapters, the focus of this study are firms from emerging countries entering developed markets with outward FDI activity. The domain for this theory-building research is limited to Chinese manufacturing firms investing in European markets (typically the German market), as they are a good representative group for new MNEs from emerging countries.¹⁴ The reasons for choosing manufacturing firms were discussed in Chapter 6.3 on page 77. Only firms who have entered the European/German market were chosen for the case study, since it was easier to gain access to these firms than to firms investing in North America.¹⁵

After the domain is defined, the population for this case study is chosen to be new MNEs listed in BCG's list of "100 new global challengers (2009)". BCG's study follows a set of quantitative and

⁷ See Gray (2009), p. 166.

⁸ See Dul & Hak (2008), p. 177.

⁹ Yin (2009), p. 18.

¹⁰ Dul & Hak (2008), p. 4. YIN differentiates case study research into single and multiple case study. In this thesis, the term "comparative case study" is used instead of "multiple case study".

¹¹ See Yin (2009), pp. 47–49.

¹² See Borchardt & Göthlich (2009), pp. 36–37.

¹³ It has a descriptive aim and describes a phenomenon of interest. See Dul & Hak (2008), p. 180. Since the topic of IDM in the domain of this study is rarely touched, it is meaningful to try to get a more complete picture of this phenomenon.

¹⁴ For details about Chinese MNEs, see Chapter 6.2 on page 69.

¹⁵ Not only Chinese firms but also LSPs who cooperate with these firms in their target markets should be included in the case study as well. It was easier to get access to these LSPs in Europe/Germany.

qualitative criteria to find firms who are building truly global footprints rather than following pure export-processing models. The firms in this list are credible contenders for leadership positions in their industries.¹⁶ The assumption is that Chinese firms in this list tend to be more successful in their internationalization than other Chinese firms, and their IDL systems also tend to be more efficient than those of other Chinese firms. It is also possible that these firms gathered experience during their internationalization and improved the performance of their IDL systems. This process of optimization can be a very interesting finding of the case study.

For the comparative case study, a certain number of instances need to be selected from this population. [DUL & HAK](#) argue that the instances should be selected in such a way that they differ as much as possible in certain criteria, for example the value of a known concept.¹⁷ As for the number of instances, they claim that theory-building research should be kept efficient and convenient, because the purpose of theory-building research is to generate propositions, which should be tested in further theory-testing research.¹⁸ Accordingly, this comparative case study was kept simple with a limited number of cases. Since the internal and external framework for a firm can differ depending on its sector, for example the market demand, characteristics of products,¹⁹ growth of a firm,²⁰ etc., firms from different sectors were selected for this case study. Moreover, the cooperation between Chinese firms and their LSPs needs to be observed to see how they bundle external resources. It is possible that the perspective of Chinese manufacturers and LSPs towards cooperation are different.²¹ So, in addition to Chinese firms, some LSPs who cooperate with these Chinese firms in European market should be included in the case study as well in order to get a whole picture from two sides. In total, 14 firms within these sectors plus LSPs were contacted with the request for interviews. Table 9.2 summarizes the selected cases and the firms who accepted to offer interviews. The selected sectors cover most of the Chinese firms listed in the BCG list.

Table 9.2: Selected cases for theory-building research

case	sector	firms
case 1	telecommunications	Huawei
case 2	energy	Suntech
case 3	steel	Baosteel
case 4	household appliances	Hellmann, Midea, Haier
case 5	automobiles	BLG, Mosolf

¹⁶ The criteria for selecting the 100 new global challengers in 2009 are, for example, firm size, international revenue, M&A deals, international presence and activities, number and volume of foreign investment, breadth and depth of intellectual property, etc. For the detailed methodology of BCG for selecting these firms see [BCG \(2009\)](#), p. 15.

¹⁷ See [Dul & Hak \(2008\)](#), p. 185.

¹⁸ See [Dul & Hak \(2008\)](#), pp. 181–182.

¹⁹ For example, the difference between industrial goods and consumer goods, as seen in [Zentes et al. \(2010\)](#), pp. 436–453.

²⁰ For example, traditional MNEs vs. born-global MNEs.

²¹ See [Anonymous \(2009c\)](#), p. 7–8.

9.3 Data collection

YIN suggests that there are six main sources of case study data: documentation, archival records, interviews, direct observations, participant observation, and physical artifacts.²² For this comparative case study, **interviews** are used as the main method for data collection. According to ARKSEY & KNIGHT:

Interviewing is a powerful way of helping people to make explicit things that have hitherto been implicit — to articulate their tacit perceptions, feelings and understandings.²³

Interview is the most logical research technique in a number of situations, for example:²⁴

- exploratory research that involves gathering information of a person's knowledge, experiences, feelings, or attitudes;
- questions which are either open-ended, complex, or have no predetermined logical sequence;
- participants who enjoy talking about their experiences rather than filling in questionnaires.

Compared to other sources of case study data, interviews are the most suitable approach for this theory-building research.

Depending on the interview questions, the forms of interview approach can be divided into structured interviews, semi-structured interviews, and non-directive interviews.²⁵ **Structured interviews** are more like a survey and are used to collect data for quantitative analysis. Respondents are asked to answer a list of standardized questions. **Semi-structured interviews** are not standardized and are often used for qualitative analysis. This form allows respondents to expand their answers and help the interviewer to explore. However, comparison between cases and subsequent evaluation is more difficult than with structured interviews.²⁶ **Non-directive interviews** allow the respondents to talk freely about the subject. The forms of interview approach can be divided into in-depth interviews and focused interviews according to the length of the interviews.²⁷ An **in-depth interview** may take place over an extended period of time with several sittings, in order to get deep insights of the respondents. A **focused interview** takes a short period of time and is usually based on a list of semi-structured interview questions. For this case study, semi-structured focused interviews were used. Open “how” and “why” questions were prepared for the interviews and each interview with one respondent took between one and two hours. The selection of respondents is very important, as they should have enough knowledge and experience relating to the object of study. In most cases, respondents from both

²² The descriptions of these sources and the strengths/weakness of these sources are given in Yin (2009), pp. 102–113.

²³ Arksey & Knight (1999), p. 32.

²⁴ See Gray (2009), pp. 370–371.

²⁵ See Gray (2009), p. 371. GRAY also suggests two other forms of interview: focused interview and informal conversational interview.

²⁶ See Lamnek (2005), pp. 351–352.

²⁷ See Yin (2009), pp. 107–108.

strategic and operative levels were selected, in order to get a more thorough understanding of each case.

The validity and reliability of the applied interview approach must be ensured to avoid compromising the quality of research.²⁸ **Validity** can be divided into internal and external validity. Internal validity in the case of a semi-structured interviews can be understood to mean that the contents of the interview questions concentrate on the object of study — focusing to find either new concepts or relations between concepts. The interview questions will be described in detail in Chapter 9.4 on the facing page. External validity refers to the extent to which findings from a study can be generalized.²⁹ The limited number of cases in this case study research, caused by an effort to keep the study simple and cheap in terms of manpower, cost, and time, means that the external validity is limited. However, as described in Table 9.2 on page 112, the selected cases cover five major sectors of successful Chinese MNEs. Moreover, the propositions generated from this case study were tested with further research, which will be described in Part IV. **Reliability** demonstrates that the operation of a research can be repeated with same results.³⁰ Since semi-structured interviews are relatively flexible and the results are more difficult to control compared to structured interviews, the following measures were followed to avoid interview bias as much as possible:

- A standardized short presentation about the study was given to all the respondents in the beginning of the interview.
- The prepared interview questions were asked in the same way to all the respondents.
- Standardized terms were used. If a respondent used a different term, he/she was asked whether his/her term could be understood as one of the standardized terms.
- The interviewer built good rapport with the respondents, but stayed neutral about the content.
- A standardized process for recording data was applied. An audio recorder was used to record the whole interview.³¹
- A standardized process was also applied for transcribing the data. All interviews were fully transcribed, which was very time-consuming, but it helped the analysis of the cases. The transcriptions were sent to the corresponding respondents for a content check and confirmation.
- Individual case reports were summarized using a consistent structure.³²

In addition to the interviews, second-hand information was used. Although academic literature on this research topic is limited, there are practice-oriented publications which introduce such firms. The following are the reasons to explore the practice through second-hand information:

- Some famous cases such as Lenovo and Haier have been described and analyzed in many

²⁸ See Kidder *et al.* (1986), pp. 26–29.

²⁹ See Gray (2009), p. 376.

³⁰ See Yin (2009), p. 40.

³¹ Permissions from respondents were asked. The recorder could be used in most interviews.

³² For detailed individual case reports, see Chapter 10 on page 117.

publications. Although available publications do not focus on international distribution management, they offer a good basis for further analysis.

- Moreover, it is difficult to get personal contact to most of these famous and giant firms. Analyzing available publications is the second best choice.

All interviews were conducted between September, 2009 and January, 2010. Table 9.3 summarizes the data sources for each case, with the first three cases focusing on Chinese MNEs and the other two cases on the cooperation with LSPs.³³

Table 9.3: Selected cases and the sources for the theory-building research

case	sector	interviewed firms	sources
case 1	telecommunications	Huawei	1 interview with the vice president of Huawei in China, 1 interview with the Supply Chain Manager of Huawei in Germany, Huawei's internal documents, publications about Huawei
case 2	energy	Suntech	1 interview with the manager for Group Planning of Suntech in China, 1 interview with the Logistics Manager of Suntech in China, Suntech's internal documents
case 3	steel	Baosteel	1 interview with the General Manager of Baosteel in Germany, 1 interview with the Logistics Manager of Baosteel in Germany, Baosteel's internal documents, publications about Baosteel
case 4	household appliances	Hellmann	1 interview with the CEO of Hellmann in Germany, 1 interview with the Project Manager of Hellmann in Germany, publications about Hellmann's Chinese customers — Haier and Midea
case 5	automobiles	BLG, Mosolf	1 interview with BLG's Senior Manager in Germany, 1 interview with Mosolf's Managing Representative in China, publications about Chinese automotive firms

9.4 Design of interview questions

The interview questions were designed based on the conceptual framework introduced in Figure 8.2 on page 105 and the theoretical foundation described in Part II. Two sets of questions were prepared for Chinese manufacturers and LSPs. The following will describe the set of questions posed to Chinese manufacturers. Interview questions are listed in detail in Appendix B.1 on page 217.

³³ It was not possible to interview both the Chinese firm and its LSP in each case, due to the availability of respondents. For details about the limitation of the study see Chapter 17 on page 211.

In order to give an overview of the international distribution of these Chinese firms, the interviews started by asking for descriptions of:

- the distribution process, network from the production site in China to the European market;
- the main distribution activities and involved players; and
- the goods, information, and financial flows.

The questions regarding moderating concepts were based on the analysis of MBV in Chapter 7.1.2 on page 92 and the market analysis of Chinese MNEs in Chapter 7.2 on page 94. The interview questions focused on:

- the characteristics of the target market,
- the customers' demands in terms of logistics service level and the degree of their satisfaction,
- the characteristics of the competitors,
- the characteristics of products and production, and their influence on distribution, and
- other influential aspects.

The respondents were asked about the influence of these aspects on the strategic importance of IDM in order to understand the relation between the market factors and the importance of IDM.

The questions for independent concepts were separated into two parts — internal resources and external resources. Regarding internal resources, the interview questions were formulated based on the analysis of intra-organizational management for international distribution in Chapter 5.4.3 on page 60, the analysis of RBV in Chapter 7.1.1 on page 88, and the resource analysis of Chinese MNEs in Chapter 7.3 on page 99. The questions concerning external resources were based on the analysis of inter-organizational management for international distribution in Chapter 5.4.2 on page 56 and the resource analysis of Chinese MNEs in Chapter 7.3 on page 99. The interview questions focused on:

- intra-organizational management for international distribution,
- the degree of outsourcing in international distribution,
- the cooperation with LSPs — selection, operation, and controlling, and
- other influential aspects.

The respondents were asked about the measures which can improve or have improved the efficiency of their IDL systems — customer service enhancement and cost reduction — in order to understand the relation between resource factors and efficiency of the IDL system. At the end of the interviews, some questions were asked about the most critical problems and main challenges.

Chapter 10

Description of the five cases

In this chapter, the five selected cases will be described in detail. Although it is not common to report the cases in a comparative case study research,¹ it is necessary to describe the cases in this study individually, before generating propositions from the cases. The reason is that there are only a few Chinese firms who have entered developed markets of Western Europe. Although there are some publications about the internationalization of Chinese firms, there are almost no publications about distribution management in their internationalization. Moreover, almost all of these publications are in the Chinese language, so the description of these cases offers valuable information about IDM of Chinese firms entering developed markets. Furthermore, the cases cover different sectors with possibly different motives, goals, and internal and external frameworks of internationalization. The differences should be described and considered in the analysis.

Each case will be described using the same structure which includes five parts: the process of internationalization, internal and external frameworks for IDM, design of the distribution process, cooperation with LSPs, and internal management for IDM.² In the sectors of telecommunications, energy and steel, the interview partners are from the Chinese manufacturing firms. In the sectors of household appliances and automobile, the LSPs who offer services to Chinese manufacturing firms were interviewed. Within each part, the structure will be kept identical, when possible.

10.1 Case 1: Telecommunications sector

In the telecommunications sector, Huawei, ZTE and UTStarcom are the three most representative firms, who managed to enter developed countries successfully. Huawei was selected for this case study because of its growth in the last few years and its foreign business. Its business in the European market in particular is by far the biggest among these three firms (see Figure 10.1).

¹ In a single case study research, it is common to describe the case in detail before the analysis.

² In the description of cases 4 and 5, not all the parts are included due to the limited number of interview partners. The reason for the difficulties in getting interview partners is described in Chapter 9.3 on page 113.

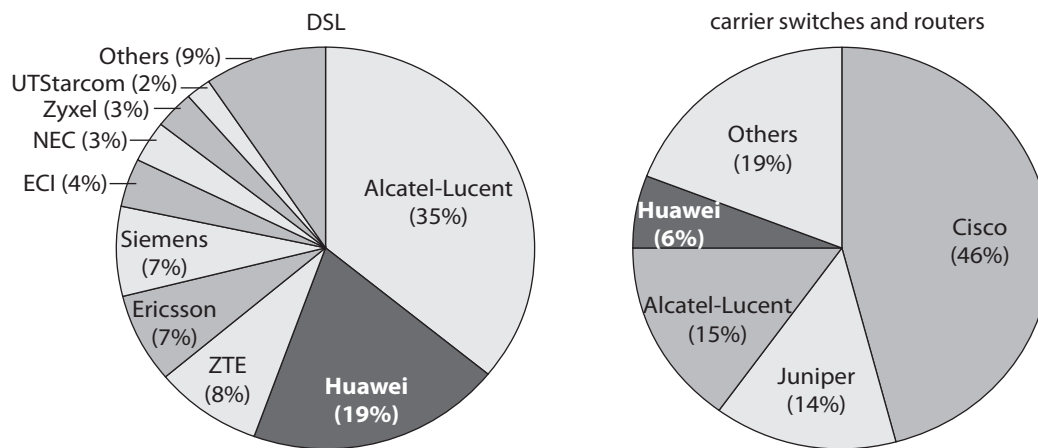


Figure 10.1: Worldwide market share of Huawei in 2006
(Source: [Kerr et al., 2007](#), p. 4.)

10.1.1 Internationalization process³

The private Chinese firm Huawei was founded in 1988 and started its business in trading telephone switching systems. Ten years later, in 1998, Huawei had already become a firm with over ten thousand employees and a market share of over 30% in China. Huawei foresaw the reducing domestic market potential in time, and started its internationalization process already in 1996. As the first step, Huawei entered the Hong Kong market and then in 1999 the markets of Yemen and Laos. In 2000, the domestic market for Huawei was almost saturated and the extensive internationalization of Huawei started in 2001. Starting with developing countries, Huawei has established eight regional centers worldwide: Asia-Pacific, Middle East, Europe, the Commonwealth of Independent States, North America, Latin America, North Africa, and South Africa. In 2006 Huawei successfully entered the high-end market and achieved acceptance from several world-class exchange carriers, such as Vodafone, Telefónica de España, Royal KPN N.V., Oracle, Greek OTE, Telecom Italia. In 2007 Huawei got the project from T-Mobile for packet switching core networks in Germany, UK, Austria, the Netherlands, and the Czech Republic. In the same year, Huawei also got the project from O2 which involves building 9000 wireless base stations in Germany. As of 2007, 35 of the world's top 50 exchange carriers work with Huawei and so far the foreign market has become the major sales market of Huawei. In 2008, overseas sales counted for 75% of the total revenue of Huawei.

In its process of internationalization, Huawei has applied different forms of FDI. In the beginning of this century, the development of the high-tech sector slowed down after the IT bubble in the end of the 1990s. Huawei used this opportunity and conducted several small-scale and low cost acquisitions, such as the acquisition of Opti Might in 2002 and Cognigine in 2003. In addition to the acquisitions, Huawei also used strategic alliances and JVs. For example, Huawei invested in LightPointe Communications to acquire technical support in the field of fiber optical communication systems. Huawei set up a JV with 3Com in 2003 and Siemens Huawei TD-SCDMA in 2004. Starting from 2005, Huawei has been cooperating with European

³ The content in this chapter is based on [Si \(2006\)](#), pp. 2–18; [Fuchs \(2007\)](#), pp. 191–195; [Zheng \(2009\)](#), pp. 18–36; [Huawei \(2010\)](#).

and American firms as an OEM, and has also set up its own subsidiaries abroad. Huawei has established eight regional headquarters worldwide and 85 branch offices outside of China by 2007. It has ten technical support centers, twelve worldwide R&D centers, 28 overseas training centers, and 128 warehouses. Moreover, Huawei has several factories and logistics centers in China, Brazil, the Netherlands, the United Arab Emirates, and Russia.

In terms of resources, Huawei has the advantage in terms of low-cost intellectual human resources. According to data from 2004, Huawei had 13,000 developers at a cost of about 2000 engineers of a firm in developed countries. Although average personnel efficiency of Huawei might be lower than that of IBM or Cisco, the quantity of engineers ensures a faster speed of R&D of Huawei. Furthermore, Huawei uses external resources through cooperation with small or medium-sized high-tech firms to accelerate its technical innovation. In order to improve the management level to match the international growth of the firm, Huawei consulted IBM about their integrated product design (IPD) and integrated supply chain (ISC) model in 2000 and restructured the organization. The divisional organizational structure was changed to a business processes-oriented management model. The flows of goods, information, and capital were reformed.

10.1.2 Internal and external framework for IDM⁴

Huawei's main products are equipment for exchange carriers. They include radio access networks, core networks, transport networks, broadband access, data communications, etc.⁵ Huawei defines itself as an equipment and services provider for the telecommunication sector, which means Huawei not only sells equipment, but also offers services like installation, upgrade, and maintenance. In addition, Huawei also produces mobile phones, network cards, digital photo frames, etc. for European and American firms as an OEM.

In Europe, Huawei has several large exchange carriers as long-term customers, such as Arcor, O2, T-Mobile, and Vodafone, and contracts with these customers usually vary from two to five years. Some of the projects are new building projects, others are moving projects. For example, one project from O2 was to replace the Nokia equipment with Huawei equipment. One of the biggest advantages of Huawei compared to its competitors is price. However, many projects in Europe for Huawei started with a loss and Huawei expects to profit through upgrade, maintenance, and extension in the future.

The profit margin in the telecommunications equipment sector is higher than in some other sectors, such as the household appliances sector. For example, Haier Group had a profit margin of 1.77% in 2008 and for its BU for white products — refrigerator, freezer, air-conditioning — it is usually 5%.⁶ Huawei had a profit margin of 13% in 2008. Due to this relatively high profit margin, Huawei does not consider reducing logistics cost a key task, and having a high level of

⁴ Based on the transcript of interviews with the respondents from Huawei, see [Huawei \(2009\)](#), other sources listed in Table 9.3 on page 115, and [Huawei \(2010\)](#).

⁵ For details, see [Huawei \(2010\)](#).

⁶ See [Anonymous \(2009a\)](#).

logistics service is seen as more important. Western European customers demand high quality service, typically higher than the rest of the world, usually requiring a delivery time of no longer than three weeks. Compare this to Huawei's another important market — Africa, where not only the required delivery time is much longer, but delays are more accepted. American customers have similar requirements as European customers, but Huawei's market in the USA is not very large yet and they have no projects with installation services. Offering service of installation increases the complexity of logistics processes.⁷

Huawei's production is located in China, mainly in Shenzhen and Dongguan. Huawei follows the concept of lean production, which means they “build to order”. That is also the reason why Huawei considers a delivery time of three weeks to be at the limit of current processes. Some surveys conducted by consulting companies show that Huawei's delivery time in Europe is not longer than its competitors despite the long distance between the production site and the sales market. However, surveys also show that its European customers are mostly unsatisfied with Huawei's delivery time. If European customers continue to increase their service level requirements, it will be necessary for Huawei to implement new measures to deal with this, such as “build to stock”, setting up a DC in Europe, or postponement in production.

There are two kinds of delivery locations — indoor and outdoor locations. Indoor locations are usually customers' rooms for IT equipment. Outdoor locations are in open terrains, where customers have their base stations. Due to the sector's specificity, Huawei produces over 10000 different types of items, among them several thousand commonly used items of different size, shape, and packaging, so a standard pallet can not always be applied on them. Depending on the type of the base station to be installed, unpacking and picking is usually needed, which also increases the complexity of logistics processes.

10.1.3 Design of the distribution process⁸

Unlike consumer product manufacturers, Huawei has a direct B2B relation to its customers, so its distribution channel is relatively simple. Figure 10.2 shows the distribution process of Huawei in Europe.

Customers usually offer a one to three month forecast. Due to the sector's specificity, there are no detailed forecasts, so the demand for certain materials can only be estimated based on experience. After the customer places the order, the local supply chain department transfers the order information to the central supply chain department, which organizes production and transport to European harbors. Although Huawei prefers transport via sea freight, most transport at the moment is via air freight, because with current process the delivery time of sea freight can not fulfill the requirements of the European customers. Although it was mentioned in the last section that logistics cost is not a critical issue for Huawei because of the high profit margin, the

⁷ In Huawei's overseas market, only Western European customers outsourced both equipment and installation to Huawei.

⁸ Based on the transcript of interviews with the respondents from Huawei, see [Huawei \(2009\)](#), and other sources listed in Table 9.3 on page 115.

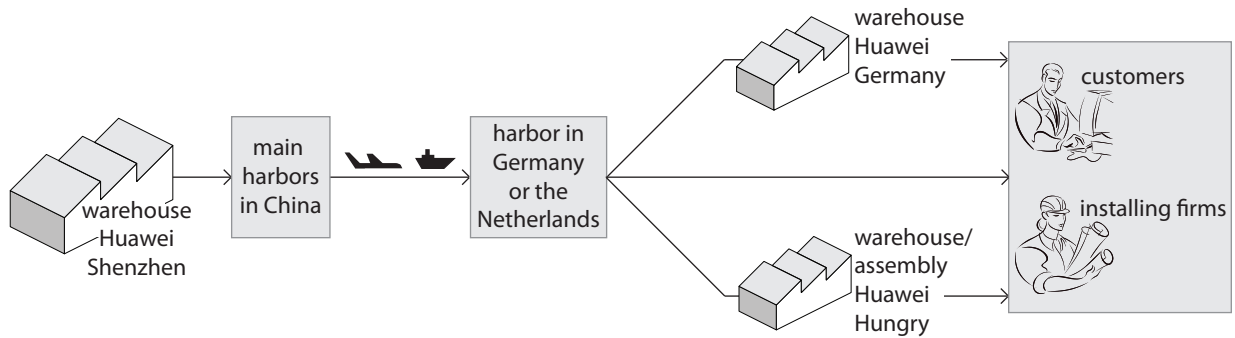


Figure 10.2: Distribution process of Huawei in Europe

high cost of air freight is not borne by the customers but Huawei. Therefore, reducing logistics cost can directly increase the profit margin.

Goods of Huawei enter Europe through the Netherlands and Germany. The Netherlands are preferred because of their more favorable tax regulation.⁹ After customs clearance, goods are delivered either directly to the customers or to cooperated installing firms, or to Huawei's warehouse in Germany. If the customer only buys equipment without the installation service, goods are delivered directly to the customer. If the customer purchases the complete package, goods are then delivered to the cooperating installing firms, who take over the tasks of transportation to the location, and installation. In Europe, Huawei cooperates with about eight installation firms.¹⁰

The warehouse in Germany is located near Frankfurt am Main, close to the Frankfurt Airport, which is a central location in Germany and is also close to Huawei's office in Eschborn. The average storage time is two weeks. The main reason for the storage is that sometimes customers do not fix the installation time when they place the order. Concerning warehouses, the recently built DC in Hungary also needs to be mentioned. The goal of setting up this DC is to shorten the delivery time, in order to fulfill the requirements of Western European customers. The stored materials are mostly standard items, which are produced in advance without orders. The DC can provide simple processing and assembly service. About 20-30% of the total goods volume selling to Europe is stored and processed in this DC before delivering to the customers.

10.1.4 Cooperation with LSPs¹¹

Huawei outsources all basic logistics activities such as transport, warehousing, and customs clearance to LSPs in overseas markets. Huawei only organizes logistics activities on its own in China. In Europe, Huawei cooperates with DHL and Panalpina. However, a single sourcing strategy will be applied in the near future, so the cooperation with DHL is being cut and

⁹ In general, air and sea freight goes through the Netherlands and express delivery goes through Germany. About 60% of the total goods volume goes through the Netherlands.

¹⁰ The interview partner was not more specific.

¹¹ Based on the transcript of interviews with the respondents from Huawei, see [Huawei \(2009\)](#), and other sources listed in Table 9.3 on page 115.

Panalpina will become the main LSP.¹² Panalpina takes over activities such as customs clearance, transport, warehousing, picking and dispatching to the delivery locations. In addition to these basic logistics activities, Huawei has started asking Panalpina to offer more services, such as warehouse management system, staff working directly in Huawei, regular performance reports, etc. So far, Huawei and Panalpina have no integrated information system. A pilot project was conducted recently, but there has been no official launch yet. The information of inbound and outbound goods are transferred by Huawei's supply chain department to Panalpina via traditional means. From time to time the data in the systems of Huawei and Panalpina have to be compared. Although errors have been small, Huawei's logistics manager believes that an integrated information system can greatly improve work efficiency.

Huawei usually has one-year to two-year contracts with LSPs. In Europe, a frame contract with a LSP is first signed by the central purchase department for Western Europe. Then the subsidiaries in each country or region sign the contract with the LSP's local subsidiaries. The details of SLA in the contract are defined according to the particular situations in each country or region. The required reliability and accuracy of delivery are expected by Huawei to be about 99% in Western Europe. Although there is SLA in the contracts with LSPs, Huawei does not have systematically defined KPIs. There is a current running project to establish a KPI system. For example, Huawei Germany requested Panalpina to send an employee to work in Huawei, who should not only be responsible for the monthly performance report, but also support the development of the KPI system. As a consequence of having no systematic KPIs, Huawei and Panalpina also have no agreement on reclamations so far, so there is no penalty when Panalpina has quality problems. However, Huawei is relatively satisfied with Panalpina's attitude, since when mistakes happen, they usually actively look for causes and suggest improvements.

Perhaps it is the customer-oriented attitude of Panalpina that made Huawei prefer it. Comparing DHL and Panalpina:

- DHL's advantage is the more powerful "hardware" strength — a comprehensive network and logistics services. The reliability and accuracy of delivery are higher than its competitors. Its disadvantage is lack of flexibility and that it can not offer Huawei individual service or special service in urgent situations. This is usually a common disadvantage of large LSPs. Different BUs, who form the comprehensive network and services, do not cooperate easily to react in changes. However, flexibility is regarded by Huawei as one of the most important criteria. Due to the culture of Chinese firms, management level, and the special characteristics¹³ of Huawei's products, changes can happen very often during operation, which requires intensive cooperation with the LSP. Another disadvantage of DHL is higher price.
- Panalpina's disadvantage is having less "hardware" strength. For example, problems such as longer delivery time and inaccuracy of delivery can happen more often. However, due to the well developed state of logistics in Europe, there is no big difference between the

¹² Reverse logistics — retrieving used equipment according to Waste Electrical and Electronic Equipment (WEEE) Directive — is outsourced to Hellmann. See [Hellmann \(2009\)](#).

¹³ See the description of Huawei's products in Chapter [10.1.2 on page 119](#).

services of these two LSPs. Its advantage is the flexibility allowing it to fulfill customers' special requirements, which usually can not be offered by DHL.

One of the reasons for choosing Panalpina could be that flexibility might be lower in ultra large firms such as DHL than smaller firms, but another important reason is the balance of power of the two partners in a cooperation. Huawei is an important customer for Panalpina, but not for DHL, even if it is influential for one single DHL office.¹⁴ An LSP with a stronger position usually does not offer special services to its less important customers.

Cooperation between Huawei and Panalpina is seen as good overall. However, the differences in the firms' culture, way of thinking, and language do cause difficulties in communication and operation. The biggest difference is in the level of flexibility. Although Panalpina provides highly flexible service, Huawei deems that its level is lower than what Huawei can offer.¹⁵ When customers have some special requirements, Huawei thinks first about how to fulfill the requirements, while the European LSPs think first about the difficulties and restrictions. However, Huawei deems that most of the difficulties and restrictions are rational and should be considered. For example, Huawei China can dispatch goods on a Sunday, but in Europe it could be difficult. Learning from each other is considered to be the most important issue when a Chinese firm enters European market. Regarding logistics, Chinese firms should learn from their LSPs. Although the logistics technology and management in Huawei China is relatively advanced,¹⁶ they need to gain knowledge from LSPs in the European market.

10.1.5 Internal management for IDM¹⁷

In terms of human resources, Huawei advocates localization — the majority of the employees in Europe are locals.¹⁸ On the other hand, Huawei also sends domestic employees to international locations. Several years of experience in Huawei's overseas subsidiaries has become a must for Huawei's employees to develop their career. In terms of organization, Huawei uses a matrix organizational structure. For example, the administrative credential of a logistics employee in Huawei Germany belongs to Huawei Germany, but his professional credential is assigned to the central supply chain department for Western Europe, which belongs to the central supply chain department in Shenzhen.

The local supply chain department (for example in Germany) has basically four tasks: contract management, procurement execution, logistics, and recycling.¹⁹

¹⁴ Comparing the revenue of the two LSPs in 2007, DHL is the No. 1 with €25141 million and Panalpina is the No. 9 with €5286 million. See [Klaus & Kille \(2008\)](#), p. 233.

¹⁵ Huawei's flexibility is not necessarily positive. It might be the result of insufficient long-term planning or the lack of standardized processes.

¹⁶ At Huawei's headquarters in Shenzhen, there is a modern, large-scaled, automated warehouse system. The warehousing and distribution logistics there are organized by Huawei itself and serve mainly the domestic market.

¹⁷ Based on the transcript of interviews with the respondents from Huawei, see [Huawei \(2009\)](#), other sources listed in [Table 9.3 on page 115](#), and [Huawei \(2010\)](#).

¹⁸ The meaning of "local and domestic personnel" is explained in the end of [Chapter 5.4.3 on page 60](#).

¹⁹ The terms used here for the four tasks are translated directly from the interview content, which does not

- Contract management refers to order management, communication with the central supply chain department, and delivery plan.
- Procurement execution refers to purchasing parts in Europe according to its customers' special requirements. Suppliers for these parts are usually appointed by the customers.
- Logistics refers to customs clearance, transport, warehousing, and dispatching. Inter-continental transportation is organized by the department of European transport, which belongs to the central supply chain department.
- Recycling refers to retrieving used equipment according to the Waste Electrical and Electronic Equipment (WEEE) Directive. Although this task is relatively easy, the workload is high.

The selection of LSPs is conducted by the central purchase department for Western Europe together with the central supply chain department for Western Europe.

Huawei has a well developed internal ERP system, which was designed for its own special business process. Externally, there is no integrated information system with customers or LSPs.²⁰ Although both customers and Huawei, especially the customers, have expressed the wish to have real time information, this has not been realized. The data exchange with the customers in Europe still takes place via traditional channels, such as email or fax.

One of the major advantages of Huawei is called “concentrating a superior force to fight an uphill battle” by the Huawei employees. It means that Huawei can bundle firm’s internal resources in a short time to fulfill the customer’s requirements. There must be boundaries between different departments in the firm with about 90000 employees.²¹ However, due to the “leader-oriented” culture of Chinese firms, especially the Chinese POEs, all departments provide full cooperation when the leader decides. This also brings about the highly praised “flexibility” by Huawei. On the other hand, Huawei is aware that although being flexible is important, standardization is also essential. As described in Chapter 10.1.1 on page 118, Huawei uses the experience of IBM as a reference and is defining standards for each department and process on different organizational levels.

10.2 Case 2: Energy sector

The solar energy sector in China was formed in the beginning of this century. Suntech was one the first solar energy firms and was ranked as having the second highest production volume worldwide in 2009.²² Suntech is the first Chinese POE in high-tech sector who conducted an

always correspond to the definitions of some of these terms in this thesis, for example the understanding of the term “logistics”.

²⁰ In 2006, an integrated information system was set up between Huawei Shenzhen and one local LSP for serving the domestic market. Two firms work in the same system and real time information exchange was realized.

²¹ Data in 2008.

²² See [Anonymous \(2010c\)](#). The ranking was based on the data of Photon International and the published data by these solar firms. In 2009, the top five suppliers of solar energy battery based on the production volume from high to low are First Solar, Suntech, Sharp, Q-Cells, and Yingli Solar.

IPO on the New York Stock Exchange. Moreover, Europe is the main sales market of Suntech, which makes Suntech a very good fit for the case study.

10.2.1 Internationalization process²³

The private Chinese firm Suntech was founded in 2001 by Dr. SHI, Zhengrong and offers solutions for solar energy. The production started in 2002 and only several years after being founded, Suntech is already a worldwide leader in this field. Its IPO on the New York Stock Exchange in 2005 was the turning point for Suntech's global strategy. Unlike firms from traditional sectors who usually go abroad after they have achieved the leading position in their home market, Suntech is almost a "born global" firm and its international growth is extremely fast. Nowadays Suntech generates 95% of its sales abroad and the European market represents close to 80% of its total sales. Suntech has already established mature and capable sales, technical, and support teams across Europe. The main markets are Germany, Spain, Italy, and France. The potential for growth in the coming years in European and North American markets is significant.²⁴

In its process of internationalization, Suntech applied different forms of FDI. Value-added activities have also expanded from sales to distribution, production, and procurement.

- The most used form is setting up its own subsidiaries abroad. In 2006, Suntech America Inc. was founded in San Francisco in order to build customer service capabilities and accelerate business initiatives. After several years of preparation, Suntech selected Arizona in 2009 to build the first manufacturing plant in the USA. In 2007, Suntech Europe was established in order to expand its market in Europe, the Middle-East, and Africa. Afterwards, sales and customer service offices were opened in Italy, Germany, and Spain in 2008 to improve local customer service and forge stronger relationships with customers. In 2008, Suntech also opened a sales office in South Korea and a sales and business development office in Australia.
- M&A were also occasionally applied by Suntech in the internationalization. In 2008 Suntech acquired MSK Corporation, a leading Japanese producer of solar modules and systems, and KSL-Kuttler, a leading German manufacturer of automation systems for the PCB-industry.
- Moreover, Akeena Solar licensed new solar panel technology to Suntech for distributing in Europe, Japan, and Australia in 2008.
- On the supply side, in order to insure the supply of raw material — silicon — Suntech set up long-term partnerships with suppliers, such as Nitel Solar Ltd., Asia Silicon Co., Ltd., Renesola, MEMC, and Hoku. In 2008 Suntech invested US\$ 20 million in Hoku Scientific to strengthen their partnership and to support Hoku's polysilicon plant development.

²³ Based on the transcript of interviews with the respondents from Suntech, see [Suntech \(2009\)](#), other sources listed in Table 9.3 on page 115, and [Suntech \(2010\)](#).

²⁴ In Europe, the sector of solar energy is more supported by the governments than in other regions. In the USA, the Obama government also introduced a new energy plan for America, which might increase the demand for solar energy.

Concerning resources, Suntech has started to seek a suitable way for its rapid international expansion. In the last few years, there has been a constant restructuring of the organizational structure and business processes. The detailed reorganization for the management of supply chain will be described in Chapter 10.2.5 on page 129.

10.2.2 Internal and external framework for IDM²⁵

Unlike Huawei, who has five major customers in Germany, Suntech has a much larger number of customers. In 2008 Suntech had around 370 customers worldwide, most of them in Europe. Suntech has over one thousand finished products, which can be separated into two categories — standard and non-standard modules. The customers of standard modules are mostly energy firms. A non-standard module is called building integrated photovoltaics (BIPV) module, which is integrated into buildings as facade or roof. The main customers are construction and architecture firms. Since BIPV modules need to be specially designed and produced according to the architecture design, they are also called “project modules”. One special characteristic of Suntech’s distribution chain is that its customers’ locations are very scattered.

The supply-demand relationship in solar energy has recently transformed from a seller’s to a buyer’s market, so logistics service is gaining strategic importance in Suntech. A few years ago, when it was still a seller’s market, customers were queuing to get goods, so there were few individual requirements from customers. However, with the change of the market situation, customers are not only stricter about the delivery time, but also demand more individual services. European customers have especially strict requirements regarding the logistics service level. Suntech has started to classify its customers into three categories — VIP, normal, and unimportant customers, in order to provide different levels of services to them. Moreover, Suntech’s competitors are mostly large firms from developed countries. In order to compete against these firms, Suntech needs to be competitive not only in terms of products but also in terms of processes, so logistics plays a strategic role in Suntech’s internationalization.

Suntech offers a 25-year-guarantee for its products. The long time of after-sales service makes the logistics system more complex. In the case of reparation, customers usually ask for a substitute to be installed before the broken part is taken away for reparation, so not only spare parts, but also substitute modules need to be stored in local markets.

The production of Suntech is located in China, mostly in Wuxi. Suntech also follows the “build to order” principle for both standard and BIPV modules. The standard modules have a very limited stock based on the forecast of the sales offices. The delivery time of the standard modules to customers in Europe is about one month, including about five days of production and 25-27 days of sea transportation. The delivery time of BIPV module is much longer and depends on the design, and production time can vary from one to two months. Like other Chinese firms in their internationalization, Suntech has the disadvantage caused by the long distance between

²⁵ Based on the transcript of interviews with the respondents from Suntech, see [Suntech \(2009\)](#), and other sources listed in Table 9.3 on page 115.

the production site and the sales market. That is one important reason that Suntech is planning to set up production sites in foreign markets, starting with the USA.

10.2.3 Design of the distribution process²⁶

Figure 10.3 shows the distribution process of Suntech in Europe.

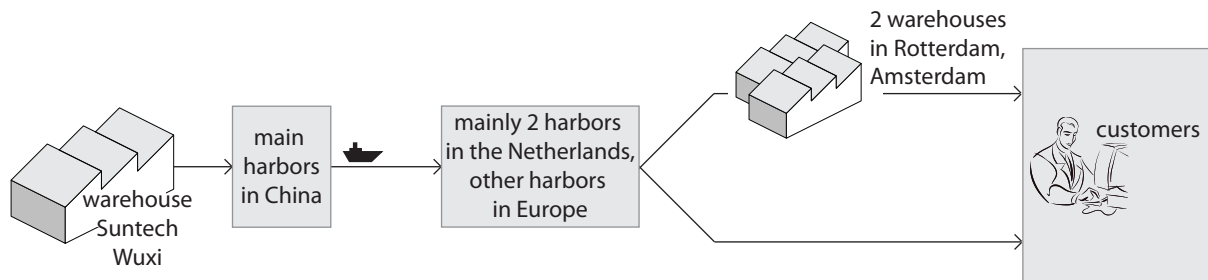


Figure 10.3: Distribution process of Suntech in Europe

Suntech Europe receives orders placed by European customers and transfers the information to Suntech Wuxi. Suntech has its own modern automatic high rack warehouse in Wuxi, which is the central distribution warehouse for all markets worldwide. The transport mode is sea freight, because the goods are relatively big and heavy.²⁷ According to customers' requirements, there are different kinds of packages. In addition to a standard package of one pallet with one cardboard box, Suntech offers a package of one pallet with about 20 cardboard boxes and each box has two solar panels for wholesalers or energy firms, who has scattered installing locations.²⁸

Shanghai is the major departure port. In 2009 Suntech started using some other ports as backup, such as Jiangyin and Zhangjiagang. The process speed at the A-list ports such as Shanghai and Shenzhen is usually slower than the other ports, due to factors such as stricter security measures. When there are important events such as the Olympic Games in 2008 or the Expo in 2010, the process at these ports might take even longer. Moreover, the road transport in the Shanghai region is rather saturated.

Suntech's products are delivered either directly to the customers or to the two warehouses in Rotterdam and Amsterdam.²⁹ Most goods are transferred through these two hubs to Northern and Western Europe. The goods for the customers in Southern Europe are usually delivered directly to them. The directly delivered goods can also enter Europe through other ports, such as Hamburg, Valencia, and Taranto. In American and Japanese markets, all goods are delivered through hubs with a standard process. Current American and Japanese customers have relatively simple requirements and outsource logistics completely to Suntech. In the European market,

²⁶ Based on the transcript of interviews with the respondents from Suntech, see [Suntech \(2009\)](#), and other sources listed in Table 9.3 on page 115.

²⁷ One pallet of goods is about 400 – 600 kg.

²⁸ For example the solar panels for installing on the house roofs.

²⁹ The explanation about why two warehouses managed by two LSPs are needed in the Netherlands is the multiple sourcing strategy. The explanation about why both warehouses are in North Europe is that the sales in Southern Europe is still relatively low.

customers have a variety of requirements depending on their demand, countries' regulations, etc., so Suntech's logistics processes in Europe are rather diverse in order to fulfill different customers' requirements.

10.2.4 Cooperation with LSPs³⁰

Suntech follows the principle of multiple and double sourcing — four to five forwarders for international transport and two LSPs for customs clearance, warehousing, picking, and Europe-wide transport. Starting from the middle of 2008, Suntech has organized 70-80% of the intercontinental transport. Before that, 60-70% of the transport was arranged by the customers. The disadvantage was that Suntech had little control of the customer-appointed forwarders. Moreover, some forwarders are not familiar with the to be transported goods, which often caused communication problems, mistakes, or delays in transport or customs clearance. The second reason for the change is that customers are willing to outsource more logistics activities to suppliers in order to reduce their costs. Suntech has long-term contracts with these four to five forwarders.³¹ These forwarders include both domestic ones such as Cosco and foreign ones such as Schenker. If the goods are to be delivered directly to one customer without transferring through hubs, the forwarders are responsible for door-to-door delivery.

In overseas markets, Suntech also has long-term cooperations with LSPs. At the moment, Suntech outsources basic logistics activities such as customs clearance, transport, warehousing, and dispatching to two LSPs in Europe. The value-added service offered by the LSPs is picking and dispatching according to Suntech's customers' daily demand, but Suntech is planning to outsource a part of the after-sales service to these LSPs as well, such as warehousing and transport of spare parts and reparation with low technical content.³²

During the selection of LSPs, not only price and network play a role, but also the size of the LSPs. Based on his own experience, the respondent claims that Chinese firms should not seek ultra large LSPs in their internationalization and Suntech now prefers medium-sized LSPs. Although large LSPs own comprehensive networks and can provide a bigger range of logistics services, their operation is not necessarily efficient. In the European market, Suntech moved from DHL to a medium-sized Japanese LSP — Vantec, who also operates a worldwide network. For Vantec, Suntech is a VIP customer, so it also gets high level customer-oriented services, which are not offered by large LSPs. Moreover, medium-sized LSPs see Chinese firms as their potential customers in the near future and are willing to provide them with better services.

Although most LSPs offer their own IT platform for Suntech to check information, an integration of the IT systems is being planned and implemented by Suntech in order to reduce the manual

³⁰ Based on the transcript of interviews with the respondents from Suntech, see [Suntech \(2009\)](#), and other sources listed in [Table 9.3 on page 115](#).

³¹ There are two main reasons for cooperation with several forwarders. The first reason is reducing risk and dependency through multiple sourcing. The second reason is that each forwarder has its focus on different shipping routes, which is needed by Suntech to serve different markets.

³² Taking into account that the solar energy sector and the firm Suntech are relatively young, the sold products have not reached the stage of maintenance and reparation. Consequently, the concept of comprehensive spare parts logistics is still being designed.

work and mistakes of double booking in two systems. Moreover, Suntech plans to use the data to control inventory, reduce cost, and get sales information. One of the hubs in Europe has realized an EDI connection of its and Suntech's IT system. The goal is to have IT integration with all the LSPs worldwide. In general, LSPs also agree to cooperate in the development of the IT integration.

In order to have better control of multiple LSPs, Suntech started to develop an evaluation system in the beginning of 2009.³³ In this evaluation system detailed KPIs³⁴ were defined. The system is applied for the evaluation in both selection and cooperation phases. During the cooperation, there is an evaluation every quarter of a year. LSPs are ranked in three categories: A, B, and C, according to their performance. If a LSP fails to meet one criterion three times in a row, it will be set to a lower rank or the contract will be terminated.

10.2.5 Internal management for IDM³⁵

Suntech is still a very young firm, but has a very fast internationalization process, so the internal organization structure is being continuously changed and optimized. The interviewed department — Group Planning — was founded several months ago. It is basically a central logistics department for coordinating the worldwide supply chain of Suntech.³⁶ This department was formerly a function under the Department of Material, which is responsible for basic logistics activities, such as material planning, warehousing, import and export, etc. As Suntech grows bigger and expands further, the firm needs to not only fulfill the customers' increasing requirements, but also make the firm's internal processes more effective and efficient. Suntech saw the need to have a central planning department to internally coordinate the departments of sales, production, procurement, and logistics; externally the customers and suppliers. According to the description of supply chain management in Chapter 5.4.1 on page 54, this department is actually a central supply chain department. In the organizational structure, Group Planning is positioned at the same level as the central departments of finance, quality, and human resources. In logistics operation, Group Planning is responsible for the design of logistics processes, selection and evaluation of LSPs, calculation and analysis of logistics costs, etc. In the calculation of logistics costs, only transport and warehousing costs are considered at the moment. However, Suntech is looking for a method for calculating the process costs.³⁷

The European headquarters of Suntech are located in Switzerland. The two warehouses in Europe are rented from LSPs, who conduct operational tasks. Suntech employees in the European

³³ One direct driver of developing an evaluation system is the influence of the financial crisis. Shortly after the financial crisis started, many LSPs and forwarders tried to sell their service to Suntech, so Suntech urgently needed a system for selecting LSPs.

³⁴ Some example of defined KPIs are accuracy and time of delivery and customs clearance, flexibility, reaction to emergent situations, etc. For selection of LSPs there are also other criteria such as price, financial situation, background of the firm, location of the harbors, type of the warehouses, etc.

³⁵ Based on the transcript of interviews with the respondents from Suntech, see [Suntech \(2009\)](#), and other sources listed in Table 9.3 on page 115.

³⁶ Human resources were selected mostly from the operative logistics departments in order to form this department.

³⁷ Suntech uses the SAP system, which makes the collection of data much easier.

headquarters are responsible for the coordination and management of the operative logistics activities in Europe. Local human resources were employed to make Suntech fit for the local market. However, the central logistics has difficulties in working together with the locals in Europe due to cultural differences. It is internally planned to involve more Chinese employees in the Swiss base and externally to outsource more tasks to LSPs through better IT integration.

Internal cooperation in Suntech is considered to be relatively good. Occasionally some conflicts can happen, for example that the sales department promises the customers some logistics service, which can not be fulfilled by the logistics department. Thus Suntech is strengthening the internal communication with an open and flat organizational hierarchy. The respondent thinks that the main characteristic of Suntech is an innovative culture of continuous self-evaluation and seeking new possibilities. Suntech not only has high R&D investment, but also sees process innovation as important, for example the consideration of rail or sea-rail transportation. Moreover, Suntech is fast at decision making and implementation.

10.3 Case 3: Steel sector

In the steel sector, several Chinese steel producers have entered developed foreign markets, for example Baosteel, Shougang, and Ansteel. Baosteel was selected for this case study based on its degree of internationalization. Baosteel has been listed in the World Top 500 since 2004 and in 2009 it was listed as number 220.³⁸ In 2009, Baosteel was ranked third in the World Steel Dynamics ranking of global steel makers in 2009.³⁹ Baosteel's process of internationalization involves different value-added activities, such as selling, procurement, and production, and it has a higher level of internationalization than other Chinese steel firms.

10.3.1 Internationalization process

The state-owned Chinese firm Baosteel was founded in 1978. Thirty years later, Baosteel has become a world leading steel producer with about 110000 employees and a high market share in China.⁴⁰ Baosteel's main business is steel production with the product focus moving slowly from plain steel to high-tech and high value-added steel.⁴¹ Although China is the main market of Baosteel, its steel products also have been sold to over 40 countries and regions, such as Japan, South Korea, Europe, and the USA. For example, Baosteel Europe GmbH was founded in 1993 in Hamburg and is responsible for the sales in Europe, North Africa, and Middle East. Baosteel also set up subsidiaries in the USA, Japan, and Singapore, with sales as the main purpose.⁴²

³⁸ See Shen (2009).

³⁹ World Steel Dynamics annually releases a ranking of global steel makers based on criteria such as, size, expanding capacity, dominance in mature markets, cooperation with other firms, profitability, etc. For more information, see www.worldsteeldynamics.com.

⁴⁰ For example, Baosteel has a market share of 50% for the product of steel body sheet for car bodies.

⁴¹ In 2006, Baosteel set the new product strategy, which is changing Baosteel into a producer of quality steel, in order to compete against other leading steel producers such as Arcelor-Mittal, Nippon, and Thyssen-Krupp.

⁴² According to information from Baosteel's website, the main subsidiaries abroad are Baosteel America Inc., Howa Trading Corporation Ltd., Baosteel Singapore Pte. Ltd., Baosteel Europe GmbH, Baosteel Australia

Furthermore, Baosteel established mining factories in Australia and Brazil and also a production site in Brazil.

For different value-added activities — selling, production, and procurement, Baosteel applied different forms of internationalization. It can be described in three phases:

- The first phase started with foreign sales. In 1985, Baosteel was given the right to conduct import and export activities. From 1985 to 1997, Baosteel had an accumulated export volume of 6.13 million tons of steel products and sales of US\$ 1941 million. For supporting the increasing sales abroad, the trading subsidiaries such as Baosteel Europe, Baosteel America were set up.
- The second phase started with the goal of acquiring raw material. Baosteel invested in foreign markets in order to establish mining factories. In May 2001, Baosteel and the Brazilian firm CVRD set up a JV — Baohuarui Mining, which guaranteed Baosteel the supply of six million tons of iron ore annually. In June 2002, Baosteel and Australian firm Hamersley Iron Pty. Ltd. set up another JV — Baosteel Australia Mining, which can provide Baosteel ten million tons of iron ore annually.
- The third phase is the optimization of the global supply chain. Baosteel invested in production sites abroad for the foreign markets. In 2004, Baosteel and CVRD set up a JV, which is the first foreign production site of Baosteel.

The development of internationalization involved expanding the functions of Baosteel's foreign subsidiaries. For example, Baosteel Europe was initially only a trading company and later it was transformed into a Ltd. Co., in order to conduct more functions in Europe. At the moment, Baosteel Europe manages not only trading, but also Baosteel Italia Distribution Center SpA, Baosteel España SL, Baosteel Middle East FZE, and Baosteel Central and East Europe Offices.⁴³ In addition to sales, other important goals of Baosteel Europe are market research, establishing the brand and long-term relation with European customers, acquiring technologies and management knowledge.⁴⁴ It is also planned that Baosteel Europe may have an R&D function in the future.

Concerning resources, Baosteel has managed to improve its competitiveness through horizontal and vertical M&A and establishing long-term partnerships.

- Horizontally, Baosteel has made a series of M&A. For example, Baosteel merged with Shanghai Metallurgical Holding Group, Shanghai Meishan Group, Xinjiang Bayi Steel, Guangsteel, and Shaosteel; acquired Yisteel's state-of-art steel smelting and rolling line, Wusteel's special steel production line, and Ningbo Baoxin Stainless Steel.⁴⁵ However, during the internationalization, Baosteel has not set up any cooperation with other Chinese

Pty. Ltd., Baohuarui Mining, and Baoruiji Mining.

⁴³ Another production site is planned in Spain. In the Middle East, a DC with processing function is planned, but the realization depends on the development of Baosteel and the economic situation of Dubai.

⁴⁴ It might also conduct M&A activities in Europe in the future.

⁴⁵ See Jin (2009), pp. 5–6.

steel firms to go out together yet, which is different from what the Japanese steel firms did in their internationalization.⁴⁶

- Vertically, Baosteel has cooperated with other firms to develop a supply network for key minerals, and a sales and distribution network throughout China and in several foreign countries. Baosteel established wholly-owned sales subsidiaries and JVs for mining of iron ore and steel production. A disadvantage of Baosteel compared to Japanese and Korean steel firms in foreign markets is the connection to customers.⁴⁷ Since downstream firms of steel industry are not internationalized enough, Baosteel has a weaker customer basis in foreign markets.

10.3.2 Internal and external framework for IDM⁴⁸

Since steel manufacturing is a traditional industry, production and distribution of steel are relatively mature processes. Baosteel has no special competitive advantage in mature markets with intensive competition such as European and American markets, other than the low production cost. Neither Baosteel's products nor its management level are more advanced than those of the European and American competitors, but Baosteel still decided to enter these markets. According to Baosteel Europe's motto, one of the main motives is "putting our products in front of the most picky customers to have them examined". Based on this motto and the motives introduced in the last section, Baosteel Europe have defined corresponding product and logistics strategies for the European market.

Products sold to the European market are mostly high value-added steel, including steel for automobiles, ship building, pipelines, machinery, household appliances, wind driven generators, boilers, pressure vessels, food and beverage packaging, etc. Among these products, automotive steel customers have the highest demands, not only in terms of product quality, but also in terms of the logistics service level, for example JIT delivery. Steel products are mostly heavy and large, and thus only suitable for bulk sea transport.⁴⁹ Moving such goods should be minimized, so setting up one or few central warehouses in Europe to cover the distribution in all Europe is not a good solution.⁵⁰

The production of Baosteel is located in China, mostly in Shanghai. Demand of foreign markets can consume the overcapacity of the production, but when the demand in the domestic market is high, it may cause conflicts in production.⁵¹ Since the duration of sea freight, especially the bulk sea transportation, is long and there is no fixed arrival time, Baosteel can only follow the concept of "build to stock". However, in order to fulfill the customers' requirements and establish

⁴⁶ See Xu (2009).

⁴⁷ Japanese and Korean automotive manufacturers usually use domestic steel firms for the supply of steel products in foreign markets, which makes the foreign expansion of these steel firms much easier.

⁴⁸ Based on the transcript of interviews with the respondents from Baosteel, see Baosteel (2009), and other sources listed in Table 9.3 on page 115.

⁴⁹ Rail transport is being discussed, but so far it can not be realized.

⁵⁰ For a more detailed theoretical analysis about the logistics network strategy, see Pfohl (2004), pp. 106–112.

⁵¹ The Chinese market is still the main and the most important market of Baosteel.

long-term relationship with the customers, Baosteel provides distribution service for most of the European customers, especially JIT delivery for automotive producers.⁵²

Before the financial crisis, customers were not critical about the logistics service level, due to the continuously increasing steel price. However, the financial crisis had a strong influence on the market of construction steel and other plain steel in Europe, so competition in steel market has tightened. In order to get closer to the level of local steel producers, it is becoming more important for Baosteel to reduce logistics costs, connect the transportation and local distribution smoothly, and improve logistics service level, since their production is located in China.

As in the last two cases, Baosteel also believes that European customers' requirements are "endless", although the logistics service in steel sector is generally less critical than that of many other sectors. For example, customers in the automotive industry ask steel producers to process the steel into the parts they need before delivering to the them. At the moment, Baosteel can not provide such services in Europe, while the European competitors already can. Therefore, Baosteel is trying to imitate and learn from the European competitors and customers regarding not only products but also the operation in developed market. In the last few years, several Chinese steel producers have entered the international market based on their low-price advantage. In contrast to these firms, Baosteel aims at customer-oriented service instead of pure price competition and tries to offer the same service as European competitors.⁵³

In addition to the gap between Baosteel and its European competitors in terms of competitive advantages, Baosteel also usually has the lowest priority when European customers, especially the large firms, select steel suppliers. Due to social responsibility and political reasons, they usually first choose local suppliers, then suppliers from EU, and lastly other foreign suppliers. The same rule is followed by Baosteel in choosing sea freight carriers as well — state-owned Chinese carriers have the priority for cooperating with Baosteel.

10.3.3 Design of the distribution process⁵⁴

The main business of Baosteel Europe is in South Europe, especially in Italy. The Italian market is not only leading in terms of sales, the operation there is also well developed. In the following, the process in Italy, especially the supply of steel body sheet for FIAT will be introduced as a representative example for Baosteel. For the Italian market, Baosteel set up a JV in 2001 — Baosteel Italia — between Baosteel Europe and Malacalza Group, who is an experienced and known firm in the iron and steel market in Italy.⁵⁵ The purpose of the JV is to develop the Italian market together.⁵⁶ Baosteel Italia plays an important role in logistics as a DC.

⁵² Compared to other Chinese steel producers who entered foreign markets, Baosteel's logistics management is advanced. Others, such as Ansteel and Wusteel, do not offer distribution service or JIT delivery.

⁵³ In China, as a powerful steel producer, Baosteel usually tells domestic customers which steel products to apply and defines business processes; but in the European market, Baosteel has to follow the customers' wishes.

⁵⁴ Based on the transcript of interviews with the respondents from Baosteel, see Baosteel (2009), and other sources listed in Table 9.3 on page 115.

⁵⁵ The share in the JV is 50 to 50, though the CEO is from Baosteel Europe.

⁵⁶ Baosteel is considering the possibility of expanding the operational area of Baosteel Italia.

Baosteel has direct B2B relation with its customers, so its distribution channel is relatively simple. Figure 10.4 shows the distribution process of Baosteel in Italy. The distribution process can be divided into two parts: the first part is sea transportation from the production site to harbors in Europe; the second part is the logistics from the harbor to the delivery location of the customers. The first part is the responsibility of Baosteel Europe and the headquarters in Shanghai; the second part of Baosteel Italia. The goal of having a JV is gaining access to the customers base and distribution network of the Italian partner.

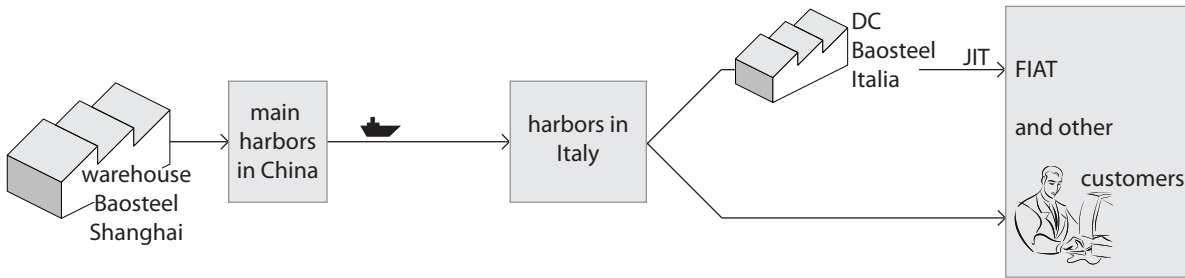


Figure 10.4: Distribution process of Baosteel in Italy

One of the main tasks of Baosteel Italia is establishing a close connection to the customers, so order processing is the responsibility of Baosteel Italia. In Italy, Baosteel is a direct supplier of FIAT. FIAT usually offers a three-month-forecast. After the customer gives a forecast of orders, Baosteel Italia transfers the information to Baosteel Europe, who works together with the headquarters to fix the product type, price, amount, and takes care of the transport. Due to the long distance between the production site and the sales market, transport costs can vary depending on the transport market and the volume of delivered goods. There are two forms of sea transport for steel goods from China to Europe:

- Container ship. The advantage is fixed delivery time, but the disadvantage is high price. Moreover, container ship carriers prefer light goods and steel goods might have low priority.
- Bulk ship. The advantage is the low price, but the disadvantage is the long delivery time with no fixed schedule.⁵⁷

Although bulk ships are still the main transport form of Baosteel, the proportion of bulk transport is dropping. Container ships are increasingly used, also depending on the product type. For example, it is usually demanded that high-value steel products are transported in containers. After the goods of Baosteel enter Italy through several different harbors, some are delivered directly to customers, some are stored in the DC first and then delivered to customers. Baosteel Italia is responsible for customs clearance, unloading, inland transport, warehousing, picking and dispatching.

⁵⁷ Bulk ship carriers usually only start shipping when the ship is fully loaded. Perhaps due to the influence of economic crisis, it is much more difficult to use a bulk ship than before. This leads to problems with the production plan, warehousing, and management of delivery time.

10.3.4 Cooperation with local firms and LSPs⁵⁸

Under the influence of the economic crisis, several Chinese steel producers have experienced sharp drops in sales in Europe,⁵⁹ but this did not happen to Baosteel. The main reason, according to the respondents, is the customer connection through Baosteel Italia and the good logistics service level through the DC at Baosteel Italia. The JV made the market entry for Baosteel easier, avoided setting up a distribution network from scratch, and saved the effort required to find and set up a cooperation with LSPs. Moreover, Baosteel avoids the problem of missing experienced employees for the European market, and can even get knowledge from the partner for international operation. Although the situation in different European countries can vary, most experiences can be applied in other markets. For example, Baosteel is running the subsidiary in Spain on its own with the knowledge gained in Italy.

Baosteel is planning to become a first-tier supplier of automotive manufacturers. Although Baosteel is now delivering to FIAT directly, most European automotive manufacturers work directly with a shear center. The shear center prepares the steel sheets daily or hourly based on the information of the automotive manufacturer and delivers the sheets directly to the production line. Most local and Japanese and Korean steel producers can offer shear center service. Baosteel is considering either cooperating with some shear centers, or setting up its own shear center in Europe, because without this service it is difficult to enter the European automotive market. Moreover, the value-added service of a shear center can bring much more profit than just selling the steel product itself. Since Chinese firms are good at learning and imitating, Baosteel has brought the concept of shear centers to China and set up the first shear center in China several years ago. The challenge Baosteel is facing is how to set up a shear center in the mature and high competitive European market. Using the model of Baosteel Italia, finding a good cooperation partner might present a good shortcut.

Baosteel follows the principle of multiple sourcing when selecting LSPs for both international transport and logistics activities in Europe. Since there are many sea freight routes to different harbors in West, North and South Europe, as well as in North Africa and the Middle East, Baosteel Europe uses about twenty sea freight carriers. Among them, about eight carriers have close cooperation with Baosteel Europe.⁶⁰ The selection of carriers is carried out by the central function at Baosteel's headquarters. Since Baosteel is an SOE, state owned Chinese carriers such as COSCO are usually the first choice. Foreign carriers have the lowest priority in the selection. While choosing LSPs for distribution in Europe, Baosteel tries to avoid large international LSPs. Although these LSPs provide comprehensive networks and services, as described in Chapter 10.3.2 on page 132, Baosteel manages distribution logistics in separated countries or regions, due to specific characteristics of steel products. Therefore, Baosteel prefers local LSPs, who are familiar with the local situation, and sees large international LSPs as less flexible, particularly when problems occur and the coordination takes more time. Baosteel

⁵⁸ Based on the transcript of interviews with the respondents from Baosteel, see Baosteel (2009), and other sources listed in Table 9.3 on page 115.

⁵⁹ For example, Ansteel exports to Europe through trading firms, so its sales is very dependent on the trading firms' performance.

⁶⁰ The interview partner was not more specific.

only uses such large LSPs temporarily when it enters a new market and can not find a local LSP. As soon as there are suitable local LSPs, Baosteel would switch to them and set up long-term cooperation. So far, only simple logistics activities are being outsourced to LSPs, and a more complex logistics process including picking and dispatching is only required and outsourced in Italy. If Baosteel invests in a shear center in the future and provides more precise JIT delivery, more value-added service might be needed from LSPs. Having no integrated IT system, information exchange goes through traditional means such as email and telephone.

10.3.5 Internal management for IDM⁶¹

The logistics for Baosteel's business in Europe, North Africa, and the Middle East are handled by the logistics department at Baosteel Europe. The main function is the management of logistics processes for the European market and the coordination between the headquarters and local logistics departments. Operational logistics functions are carried out by the local logistics department in each country or region.

Through JVs, Baosteel has internalized some external resources, so that it can make better use of the resources from the Italian partner, better control the distribution process, and accumulate experience. Before the financial crisis, when logistics cost and service level were not critical, logistics processes were designed in two separate parts — from production site to European harbors and from these harbors to the customers — and the logistics costs were also calculated separately. However, after the financial crisis started, the pressure to reduce logistics costs and improve their logistics service level has pushed Baosteel to combine these two parts and design an overall logistics process. For example, when using bulk ships for shipping, it is important to consider if the customers would accept the possible delay⁶² and if the warehousing cost is lower than the cost saved in sea transport.

As a Chinese firm with limited resources, Baosteel has no competitive advantage in the European market, either in products or in processes. It is also not the goal of Baosteel to increase sales dramatically.⁶³ Baosteel tries to have a clear goal for all the FDI activities and avoid internationalization merely for the sake of internationalization.⁶⁴ Entering the European market is a process of learning and imitating in order to achieve knowledge and experience which Baosteel did not have. A typical example is the development of Baosteel Spain, which started as a representative office and then developed to Baosteel España SL, with the ability for JIT delivery. Two main reasons for the development is that many experiences learnt in the Italian market were applied in Spain and experienced local sales and logistics managers were employed to run the business in Spain.

When domestic and foreign demands cause a conflict in production capacity, Baosteel will ensure

⁶¹ Based on the transcript of interviews with the respondents from Baosteel, see [Baosteel \(2009\)](#), and other sources listed in [Table 9.3 on page 115](#).

⁶² The biggest complaint from the European customers is the long delivery time.

⁶³ This is different from Japanese or Korean steel producers, who need the sales in foreign markets to grow. Chinese market remains the biggest market of Baosteel.

⁶⁴ See [Xu \(2009\)](#).

the sales of certain strategic products in European market despite the difficulty in production or possible lower profit, in order to keep long-term customer ties. Although sales and maximization of profit are not the goal of Baosteel Europe, the sales have been growing continuously. Due to the relocation of the production of automotive manufacturers to Eastern Europe, Baosteel is expanding its business to Eastern Europe — a representative office in Eastern Europe was newly established. However, offering the same value-added service as in the Italian market means a large investment of different kinds of resources in Eastern Europe.

10.4 Case 4: Household appliances sector

Several Chinese firms have entered global markets including developed markets in the household appliances sector. Representatives include Changhong, Galanz, Haier, Hisense, and Midea. The interviewed LSP — Hellmann — cooperates with Changhong, Haier, and Midea at the moment. The first part gives a short introduction of the internationalization of these firms. Then the focus will shift onto the cooperation with LSPs.

10.4.1 Internationalization process

Haier started its internationalization in the 1990s. In 1998, Haier set up a production site in the USA. The goal is to have “three times 1/3”, which means 1/3 of the products are produced in China for domestic market, 1/3 are produced in China for foreign market, and 1/3 are produced abroad for foreign markets.⁶⁵ In order to serve the European market, Haier set up European headquarters — Haier Europe — in 2000 in Varese (Italy). The European headquarters are responsible for marketing, sales, and distribution for 17 countries in Europe. For the distribution of white products, such as refrigerators and washing machines, Haier Europe has four warehouses (DC) in Italy, Greece, UK, and Spain, from where the goods are delivered to retailers. Since 2004, Haier Europe has set up several sales offices in Germany, Spain, France, and Italy for a direct selling structure.⁶⁶ For distribution of white products, Haier cooperates with Rhenus, who is specialized in the distribution logistics of white products.⁶⁷ Other than white products, Haier also entered the field of brown products, such as television sets, computers, mobile phones, digital cameras, and MP3 players. Its television products are also entering the European market.⁶⁸ For distribution of brown products, Haier cooperates with Hellmann.⁶⁹

Besides Haier, Changhong and Midea have also entered European market. Changhong is the first firm in this sector who set up an overseas production site in Europe. In 2006, Changhong Europe was established in the Czech Republic and is responsible for R&D, production, sales, and after-sales services. The production of televisions started in 2007 with products mainly

⁶⁵ See [Lu \(2007b\)](#), p. 193; [Zheng \(2009\)](#), p. 62.

⁶⁶ See [Haier \(2010b\)](#).

⁶⁷ See [Anonymous \(2006\)](#).

⁶⁸ See [Haier \(2010a\)](#).

⁶⁹ For details, see Chapter 10.4.2 on the next page.

for the European market. This is the first step of Changhong's localization strategy in its internationalization. So far, Changhong has set up production sites in the Czech Republic, Indonesia, Australia, and Korea.⁷⁰ Changhong Europe also plans to produce other products in the future, such as air conditioners, mobile phones, refrigerators, and set top boxes. Midea has established 21 overseas branch subsidiaries over the world, including the USA, Germany, Japan, Hong Kong, Russia, Malaysia, etc.⁷¹ Midea entered the European market with its air conditioner products and small household appliances. Under Midea Group, every product group forms a subsidiary firm, which manages the production and sales independently. Midea Europe, which specializes in air conditioner products, was established in 2000 in Hamburg. The business of small household appliances is running under Midea Deutschland GmbH in Düsseldorf. Although Midea is a very famous brand in China in the sector of household appliances, its reputation in Europe is still very limited, so Midea also has OEM business and produces for brands of European producers, who often demand Midea to provide logistics services from production site to the destination market. For the logistics activities of small household appliances, Midea cooperates with Hellmann.

10.4.2 Cooperation with LSPs⁷²

Hellmann Worldwide Logistics (Hellmann) started its involvement with China in 1983 and at the moment has over 30 branch offices in 18 cities in China.⁷³ Hellmann is also actively preparing for cooperation with Chinese firms when they come to European market. Although the business volume with Chinese firms is still relatively low, Hellmann believes in the potential of future growth. In 2006 Hellmann established a JV with China Household Electric Appliance Research Institute, in order to strengthen the contact with the Chinese market and Chinese firms.

Service offered by LSPs

Hellmann cooperates with Haier for the distribution of television sets, which are produced in Poland by TPV. Hellmann is the coordinator between Haier, TPV, and retailers (for example EP) and the operator for the logistics process from TPV to retailers' different shops in Germany. Hellmann also does the distribution logistics for Haier in Russia. LSPs with specialized equipment and know-how are needed for the logistics service of white products.⁷⁴ Hellmann has more experience with brown products, especially know-how and a network for reverse logistics. Hellmann cooperates with Midea Germany for small household appliances, such as microwaves, stoves, and ovens. With its network in both Europe and China, Hellmann's service covers the whole process, including delivery from Midea's production site in China to main Chinese harbors, sea transport to the Hamburg harbor, customs clearance, storage in its warehouse in Osnabrück,

⁷⁰ See [Changhong \(2010\)](#).

⁷¹ See [Midea \(2010\)](#).

⁷² Based on the transcript of interviews with the respondents from Hellmann, see [Hellmann \(2009\)](#), and other sources listed in [Table 9.3 on page 115](#).

⁷³ See [Siegmund \(2008\)](#), p. 4.

⁷⁴ For example, Rhenus transports refrigerators without pallets but special facility.

and finally delivery to Midea's customers such as Saturn and Media Markt according to their orders. Moreover, Hellmann takes care of the return of damaged goods and the recycling of old goods.

Hellmann can offer not only operative activities, but also consultancy about design and optimization of logistics processes to Chinese firms. For example, according to Midea's wish to reduce storage costs, Hellmann helped Midea redesign the process from containers arriving at European harbors, through cross-docking warehouses, to retailers. Hellmann believes that Chinese firms lack logistics know-how in Europe, so European LSPs' know-how and experience are a valuable external resource for Chinese firms. Meanwhile, it is not enough for an LSP to only offer logistics related services to Chinese firms entering the European market, so Hellmann is setting up a network to provide a variety of services. This network includes wholesalers and retailers, consultants for marketing and legal issues, or even industrial designers for household appliances. Other than consultancy for logistics processes, Hellmann can also provide know-how in the distribution channel of household appliances. With the increasing importance of E-commerce, Hellmann can provide a platform for E-commerce, including design, implementation, and marketing of an E-shop. Moreover, Hellmann can also provide the IT system, and a payment processing system for Chinese firms to start their business in different countries in Europe more easily. Offering such a network to Chinese firms is also one of the purposes of the Hellmann's JV in China.

Managing the cooperation

The biggest problems in a cooperation between a Chinese firm and an LSP are communication and building trust. The reasons that may have caused the problems are:

- Chinese firms lack know-how about European markets, such as working times, regulations, geographical and political conditions. This might cause doubt about the LSPs' solution and misunderstanding about the inflexibility of European LSPs.
- LSP is "squeezed" between Chinese firms and their European customers who both have different management and working styles. As a solution, Hellmann hires staff with both German and Chinese backgrounds in order to provide a bridge connecting the two sides. This staff also has the function of helping Chinese firms learn about Europe. Vice-versa, Hellmann suggests that Chinese firms should hire even more European managers and staff at certain positions in their subsidiaries in Europe.
- The cultural difference always plays a role. Chinese firms prefer to have direct and personal contact, so they may for example call very often to ask about the delivery status.⁷⁵
- Chinese firms need to understand that good services cost more and can also provide/create more value.⁷⁶

⁷⁵ German firms prefer to have clearly written rules, once it is defined in a contract, for example 48 hours delivery time within certain regions, then there is no further need for checking.

⁷⁶ It is a general problem in logistics sector, because unlike products, service is invisible. Moreover, service is generally relatively cheap in China.

For IT integration, Hellmann has its own IT subsidiary company which develops the IT interface between Hellmann and its customers. Hellmann has an integrated IT system with real time information sharing with some European customers, for example in the automotive industry with MAN, VW for the DC of Audi in Dubai, and with BMW for the production of Mini. In the cooperation with MAN, when MAN's retailers place orders in MAN's system, Hellmann is notified automatically in real time. Then Hellmann gives direct feedback to the retailers about the delivery. IT integration depends on the shipper's requirements, its IT strength, the volume, and the duration of the cooperation. So far there is still no IT integration with Chinese firms.

10.5 Case 5: Automotive sector

Chinese automobile manufacturers tested the European and North American markets with some of their cars several years ago, but with no success. Since then, Chinese firms have been very careful with developed markets and their internationalization is currently focused on developing markets. Although Chinese automotive firms have not really entered European market, which is the focus of this study, the automotive sector was still included as the last case based on the following reasons:

- The importance of the automotive industry for the economic development of China is increasing rapidly.⁷⁷
- Internationalization of the automotive industry can bring along internationalization of other industries.
- German LSPs are preparing to work with Chinese automobile manufacturers in the near future.
- The experience of the Japanese and Korean firms' expansion to the European market can be applied to Chinese firms.

10.5.1 Internationalization process

Rapid economic development has made China the second-largest market for automobiles, second only to the USA. However, the Chinese market has become a competitive market for global car manufacturers such as Volkswagen, Toyota, General Motor, Peugeot, etc. The approaches to developing China's own automotive industry can be roughly divided into two schools — the old school of “market trades for technology” and the new school of “independent development”.⁷⁸ The old school is represented by several big Chinese automobile manufacturers, such as SAIC and FAW, who set up JVs with German, Japanese, and American OEMs. Recently, more M&A activities were conducted by these firms to buy technology from foreign OEMs.⁷⁹ The new

⁷⁷ See [DRC et al. \(2008\)](#), p. 13.

⁷⁸ See [Zheng \(2009\)](#), p. 133.

⁷⁹ For an example of SAIC Group's internationalization with M&A, see [Li \(2008\)](#), pp. 237–240.

school is represented by several medium-sized local automobile manufacturers, such as Geely and Chery, who do their research and develop automobiles independently.

From 2001 to 2005, China's export volume of automobiles increased at an average rate of 67% per year, and in 2005 the export volume was higher than the import volume.⁸⁰ Most exported automobiles are commercial vehicles and trucks, very few passenger cars. The majority of the exported automobiles are from JVs with foreign automobile manufacturers, not own brand names. Local independent firms have been developing rapidly in the recent years with their independent R&D, innovation, and branding. The trend shows that old school car manufacturers, who have solely relied on JVs with foreign automobile manufacturers are joining the new school firms in producing vehicles under their own brand names. In 2007, more than 70% of the total 500000 exported cars and trucks bear domestic Chinese brands.⁸¹ The target markets are developing countries with lower entry barriers, such as Southeast Asia, Africa, Latin America, Russia, and Eastern Europe.

The following sections take Chery as an example for describing the internationalization of Chinese local car manufacturers.⁸² Chery is in a similar situation as Korean car manufacturers in the 1980s,⁸³ in that their domestic market is mostly occupied by the big JV firms, so going abroad is a must for further growth. The export activity of Chery started in 2001 with 10 cars sold to Syria. In 2007, the export volume reached 119800 cars, which includes exporting self-developed engines. After entering the Middle East and African markets, Chery has started exporting to Latin America and Eastern Europe. In addition to exporting finished cars, Chery has started CKD (complete knock down) projects in its main markets, such as Iran, Russia, Ukraine, and Egypt. So far, Chery has entered 38 countries and regions and has built up sales networks in 20 of these countries. The next step — entering high end foreign markets — is being actively planned.

10.5.2 Design of the distribution process⁸⁴

While quality of Chinese cars is the absolute deciding factor for entering developed markets, the ability of the distribution network to meet high demands of European customers becomes a crucial issue for the success of market entry as soon as the entry decision is made. Regarding the requirements of European customers, there are two main characteristics: individualized car configuration and short lead time.

It is already standard in the European automotive industry that a customer orders a car according to his or her own wishes and then the individualized car is produced just according to the customer's order. A customer's order can still be changed shortly before the car is assembled,

⁸⁰ See [Gao \(2008\)](#), p. 90.

⁸¹ See [Gao \(2008\)](#), p. 91.

⁸² See [Zheng \(2009\)](#), pp. 137–140; [Chery \(2010\)](#).

⁸³ For details, see Chapter 6.3.3 on page 85.

⁸⁴ Based on the transcript of the interview with the respondent from BLG, see [BLG \(2009\)](#), the transcript of the interview with the respondent from Mosolf, see [Mosolf \(2009\)](#), and other sources listed in Table 9.3 on page 115.

and the car can be delivered shortly afterwards.⁸⁵ Reaching this standard service level is already a challenge for Chinese car manufactures, whose production is based in China, so it is not possible to produce to order due to the long transport time needed. A standardized car without individualization possibilities is not likely to be accepted by European customers, although this also depends on the car market segment. In the low-price market segment it is possible to offer fewer modification options; but at the same time, customers can be less tolerant with the lead time than they would be when ordering a luxury car.

Based on the experience of Japanese car manufacturers who entered the European market about three decades ago and Korean car manufacturers who entered 15 years ago, a distribution process can be designed as illustrated in Figure 10.5. Standard cars⁸⁶ are produced at production sites in home country without customers' orders. Cars are transported via sea freight to one of the harbors in Europe with specialized terminals for car transport, and then stored in one or more warehouses. When a customer orders a car with an individually selected configuration, a standard car will then be modified according to the order and then delivered to the customer with a short lead time.

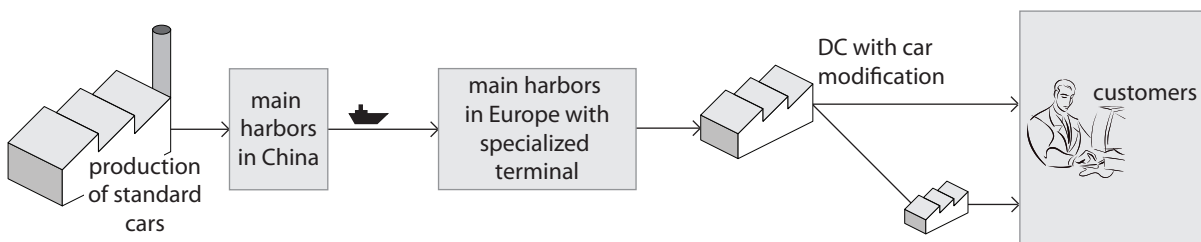


Figure 10.5: Suggested distribution process for Chinese car manufacturers in Europe

This can be a good way for a car manufacturer to enter European market without setting up its own production site in Europe.⁸⁷ However, realization of such process needs good internal cooperation between different functions and more important external cooperation with service providers who can take over the logistics and value-added activities.

⁸⁵ However, this is only the impression of the customers. In order to shorten lead time, car manufacturers produce the standard car body in advance. There is a freeze point just before the car body enters the final assembly line where the parts are going to be assembled on the car body according to the customer's order, after which the customer's order can not be changed anymore.

⁸⁶ These cars usually have the most common configuration but with different painted colors.

⁸⁷ After the sales volume reaches a certain level and is stabilized, it makes sense to invest a production site in Europe and compete against the European car manufacturers on the same level. Based on the experience of Japanese and Korean firms, it takes 10 to 15 years for a car manufacturer to go from the first to the second step.

10.5.3 Cooperation with LSPs⁸⁸

Services offers by LSPs

Services that an LSP like BLG or Mosolf offers can cover the whole process from cars arriving at a European harbor until their delivery to the customers.⁸⁹ In addition to regular logistics activities such as loading/unloading, customs clearance, warehousing, and transport, the most important service that they offer are value-added services for cars.⁹⁰ For warehousing, they have warehouses with very high capacity for car storage and also warehouses for cross-docking. For transport, they have an intermodal transport network including road, rail, and inland waterway transport covering all of Europe. For value-added services, they position themselves as a “prolonged assembly line” of car manufacturers. They have an infrastructure and human resources similar to a car workshop, but with higher capacity. They can, for example, paint cars, install a sunroof, change seats, install air conditioning or a HiFi system, perform pre-delivery inspection, modify a normal car into a police car and vice versa, correct serial problems, etc.

This approach was originally used by Japanese car manufacturers when they entered the European market. Theoretically, dealers should be able to organize such services, but it is difficult to keep a standard quality level across different dealers. The centralized solution with one service provider can not only guarantee the quality level, but also reduce the cost due to synergy effects. Along with the development of these Japanese and Korean firms, a few LSPs in Germany have specialized themselves in this business and are continuously extending their services and their network in this field.⁹¹ Cooperation with BLG is the solution that Korean manufacturer Kia used for entering European market 15 years ago. Having started with 10000 cars per year, Kia is now one of the biggest customers of BLG. On average, there are 10000 to 20000 standard Kia cars with different engine variants and colors parked in Bremerhaven (Germany). Kia offers its customers a range of options for configuring their own cars. As soon as an order from a customer comes, BLG customizes a car according to the order and then delivers the car to the customer.⁹² These LSPs see themselves not only as the prolonged assembly line, but also as a “prolonged knowledge base”. BLG claims that Chinese car manufacturers do not need to have professional logistics knowledge, which is usually the case (they lack logistics know-how about the European market). With such a cooperation, they can leave the logistics and value-added activities to the LSPs.

After Kia set up a production site in Europe, the cooperation with BLG continued for the production and distribution logistics in Europe. These LSPs can offer contract logistics for

⁸⁸ Based on the transcript of the interview with the respondent from BLG, see [BLG \(2009\)](#), the transcript of the interview with the respondent from Mosolf, see [Mosolf \(2009\)](#), and other sources listed in [Table 9.3 on page 115](#).

⁸⁹ These LSPs can also organize overseas transport, but car manufacturers usually prefer to organize it themselves, because they transport cars worldwide and can get better prices from carriers.

⁹⁰ For example, in 2008 Mosolf transported about 2.5 million cars and provided value-added services for one million of them.

⁹¹ For example, BLG is strengthening its presence in the Eastern European market, because they see a higher growth potential there.

⁹² BLG gets original parts for the car modification from Kia in Europe.

the complete chain, from managing the parts and delivering them to the assembly line, to distributing the finished cars to the customers around Europe.

Managing the cooperation

In terms of LSP selection, both BLG and Mosolf understand that Chinese firms prefer medium-sized LSPs and medium-sized LSPs also pay more attention to Chinese firms. But there are very few LSPs who can offer such specialized services for the automotive sector, so there are also not many other choices if Chinese car manufacturers want to enter European market with the suggested solution.⁹³ Both BLG and Mosolf use IT systems developed in-house in order to support warehouse management, and integration with other systems for real-time information sharing with car manufacturers, dealers, and final customers. Since IT integration is a complex task, the LSPs will only do it in the case of long-term cooperation.

Concerning SLA, the respondent from Mosolf doubts that Chinese car manufacturers are aware of the importance of SLAs. BLG considers having SLAs with well defined KPIs to be an important part of the learning process. For example, since the starting of their cooperation with Kia, Kia has continuously increased demands for both service range and service level.

The LSPs do not think that there are more problems when cooperating with Japanese and Korean firms than with European firms. The startup phase might be more difficult due to the language problem and cultural differences. BLG claims that it is more efficient if the car manufacturer sends its staff to Germany to work together with BLG staff during the planning and startup phase, because the communication way is shorter and the learning process is faster. The visiting staff should have sufficient technical know-how about their products and the authority for making decisions, but logistics know-how is not a must, because that is the job of BLG.

The LSPs believe that the experience gained from the cooperation with the Japanese and Korean car manufacturers can be applied to Chinese firms. Both BLG and Mosolf have opened representative offices in China with the purpose of establishing a presence in the Chinese market, doing market research, acquiring customers and projects, establishing relations with relevant organizations, etc. They both believe that Chinese automotive firms will enter the European market in the near future.⁹⁴

⁹³ These LSPs do not cover all the logistics fields either. It is normal that a car manufacturer might need different LSPs for different processes. For example, spare part logistics, which is a crucial process for automobiles, is usually conducted by LSPs specialized in spare parts.

⁹⁴ Both BLG and Mosolf have worked together with Chinese car manufacturers on a small scale. BLG worked with Brilliance Auto in 2006 and Mosolf worked with four Chinese car manufacturers in 2009.

Chapter 11

Evaluation of the cases

The evaluation of the cases follows the steps introduced by [DUL & HAK](#):¹

- extracting relevant evidence — finding all relevant evidence in some or all cases,²
- coding — refining and defining the discovered concepts in a clear and summarized way,
- data presentation — presenting the independent and dependent concepts in a clearly laid out form (such as summary tables) for further analysis,³
- data analysis — drawing conclusions and developing propositions.

As shown in [Figure 8.2 on page 105](#), “strategic importance of IDM” — assumed to be influenced by “market” factors — is both the trigger and the restriction which influences the management of resources and its success. The first section will focus on “market” factors and their relation to the “strategic importance of IDM” in the internationalization of Chinese firms. The second and third sections will focus on “resource” factors — internal and external resources. In these two sections, the relation between “resource” and “efficient IDL systems” will be analyzed in the case where IDM has strategic importance. In order to find the “restriction” function of the “market”, in the last section the results from [Chapter 11.2](#) and [Chapter 11.3](#) will be analyzed in the case where IDM has no strategic importance.

11.1 Market influence on the strategic importance of IDM

As described in [Chapter 7.1.2 on page 92](#), MBV will be applied as one of the explanatory theories. This section defines candidate concepts and their relation to the dependent concept — strategic importance of IDM in Chinese firms’ expansion into the European market (see [Figure 11.1](#)).

¹ See [Dul & Hak \(2008\)](#), pp. 187–189.

² Grounded Theory provides a method for discovering concepts through “open coding” of data and then comparing these codes between different instances. See [Strauss & Corbin \(2007\)](#), pp. 195–198. This method was not applied in this case study.

³ See [Eisenhardt & Graebner \(2007\)](#), p. 29. An excellent example of summarizing case evidence using construct tables can be seen in [Gilbert \(2005\)](#).

The first three cases from the telecommunications, energy, and steel sectors are used as main sources for the analysis. The other two cases are used as complementary sources.

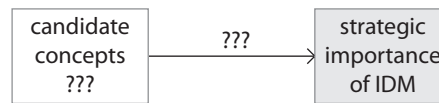


Figure 11.1: Defining candidate concepts and their relation to the dependent concept “strategic importance of IDM”

11.1.1 Relevant evidence

Table 11.1 summarizes the factors which make IDM unimportant. Table 11.2 summarizes the factors which make IDM importance. The evidence is derived directly from the sources of the cases without manipulation. These factors in the table are roughly sorted according to the categorization presented in Chapter 11.1.2. Most evidence shows that IDM has strategic importance and only little evidence shows that IDM is not crucial. This result confirms the results of a few other surveys, for example the ones from [STRAUBE *et al.*](#) and [BÖHNLEIN & MEIER](#).⁴

Table 11.1: Evidence of factors which make IDM unimportant

cases	example evidence derived directly from the cases
case 1	Due to a high profit margin, reducing logistics cost is not a key task.
case 2	For low priority customers, logistics service level is not important.
case 3	For some types of low value-added steel products, logistics service is not critical. In general, the logistics service in the steel sector is less critical than in other sectors such as telecommunications or automobiles.
case 5	Logistics seems to be unimportant for Chinese car manufacturers in their short-term transactions with a German car retailer.

11.1.2 Coding and data presentation

In order to facilitate a comparison of observations for building propositions, different market factors are categorized based on the five forces distinguished by [PORTER](#) (see Figure 7.1 on page 93). The five forces, which were originally used to describe competition in an industry, are applied in this case study to categorize the forces which influence the strategic importance of IDM. As illustrated in Figure 11.2, service level requirements from the customers’ side and the expected duration of the cooperation from the Chinese firms’ side are considered to be the “bargaining power of buyers”. The “threat of new entrants” may emerge from other Chinese firms or new MNEs from other emerging countries, because these firms have similar conditions for internationalization, such as production cost advantage or governmental support for going

⁴ See [Straube *et al.* \(2008\)](#), pp. 13–19; [Böhnlein & Meier \(2009\)](#), pp. 46–50.

Table 11.2: Evidence of factors which make IDM important

cases	example evidence derived directly from the cases
case 1	<p>Western European customers demand high quality service.</p> <p>Huawei expects to have long-term cooperation with European customers.</p>
	<p>Other Chinese telecommunications firms are also entering European market, such as ZTE.</p>
	<p>The production site is in China.</p> <p>The “build to order” production concept often requires air freight.</p>
	<p>European competitors have a higher service level.</p> <p>Offering installation service increases the complexity of logistics processes, such as unpacking and picking.</p> <p>There is a huge number of different commonly used items with no standardized packaging.</p>
case 2	<p>The supply-demand relationship has transformed to a buyer’s market recently. Customers are stricter with delivery time and demand more individual services.</p> <p>Suntech wants to have long-term cooperation with their VIP customers.</p>
	<p>The production site is in China.</p> <p>The “build to order” production concept limits the reduction of delivery time.</p>
	<p>Competitors are large firms from developed countries who offer high quality logistics service.</p>
	<p>Long guarantee time makes logistics process more complex.</p>
case 3	<p>Baosteel expects to have long-term cooperation with European customers.</p> <p>Baosteel follows the concept of customer-oriented service instead of pure low price competition.</p>
	<p>The financial crisis tightened the competition in the steel market, so customers are stricter about delivery service.</p>
	<p>Other Chinese steel firms are also entering European market, such as Shougang and Ansteel.</p>
	<p>Since Europe is not the main market of Baosteel, conflicts can arise in production when there is high demand in the domestic market.</p> <p>The production site is in China.</p>
case 4	<p>European competitors generally have more experience and better services.</p> <p>Product “automotive steel” should be delivered JIT.</p>
	<p>Several Chinese manufacturers are entering the European market, such as Haier, Changhong, and Midea.</p>
	<p>European manufacturers generally provide a higher service level.</p> <p>The profit margin is relatively low.</p>

	Consumers wish to have individualized cars made for them.
case 5	Consumers expect roughly the same lead time from all the car manufacturers. The tolerance of delivery time for cheaper cars can be even less.
	The production site is in China.

abroad. Chinese firms usually keep their production in China, so production in China can be considered as a supplier of the subsidiaries in Europe. The situation of product supply from their own production site is described by the “bargaining power of suppliers”. The “threat of substitute products or services” has little relevance to distribution in these cases. Concerning “rivalry among existing competitors” within the industry, the service level of the competitors and characteristics of products are taken as two relevant aspects.

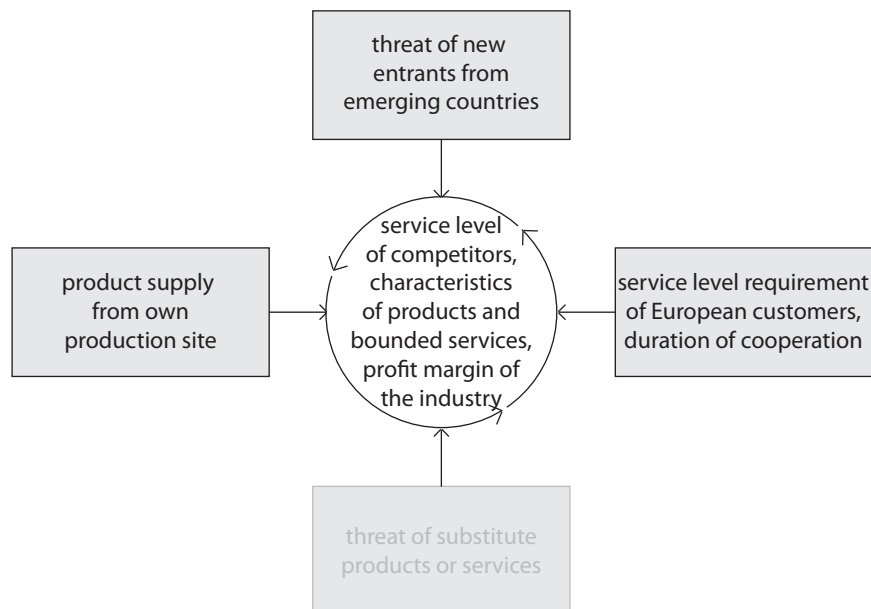


Figure 11.2: Influential aspects of the strategic importance of IDM from the market point of view

The importance of IDM is observed in two aspects — service enhancement and cost reduction. Scores obtained through this coding procedure are presented in Table 11.3. In the table, candidate concepts which increase the strategic importance of IDM are listed. The importance of the service level was much more often emphasized than the cost issue in all the cases, which also reflects the character of developed markets. Cost reduction is important mainly due to the long transport distance between the production site and the sales market.

In general, the respondents did not claim that IDM has no strategic importance in their internationalization. Three candidate concepts are mentioned, which reduce the strategic importance of IDM for a part of their products or customers, or from the perspective of cost: short duration of cooperation, standard and low value-added products, and high profit margins.

Table 11.3: Candidate concepts which make IDM important

candidate concepts \ cases	service					cost				
	1	2	3	4	5	1	2	3	4	5
customers' service level requirements	+	+	+		+					
duration of cooperation	+	+	+							
threat of new entrants from emerging countries	+		+	+						
supply from own production	+	+	+		+	+	+	+		+
service level of competitors	+	+	+	+	+					
character of products and bounded services	+	+	+							
profit margin of the industry									+	

11.1.3 Data analysis

In cases 1, 2, 3, and 5, it is claimed that customers' service level requirements in Europe are more demanding than anywhere else, with the North American market having a similar level. Therefore, the service of distribution logistics for the European market has greater strategic importance than when entering other less developed markets. A sufficient condition proposition for strategic importance of IDM can be summarized as:

Proposition 1a (P1a): If a high service level is required by customers, then IDM has strategic importance.

The second candidate concept "duration of cooperation" will be analyzed at the end of this section. The firms studied in cases 1, 3, and 4 are facing potential new competitors from China in European market. These potential new entrants may have similar products as the focal firm and they usually also have the same production cost advantage. Following the strategy of differentiation in process — in this context: differentiation in logistics service — can provide competitive advantage against new entrants. A sufficient condition proposition for strategic importance of IDM can be summarized as:

Proposition 1b (P1b): If there are potential new entrants from emerging countries, then IDM has strategic importance.

In cases 1, 2, 3, and 5, the production sites of the studied firms are all in China. The long physical distance not only causes high transportation costs, but also makes it difficult to satisfy high service level requirements of European customers. Moreover, in cases 1 and 3, the new Chinese MNEs still have China as their main market. The subsidiaries in Europe may not have

the highest priority for getting products when there is a conflict in production capacity. In case 3, the product supply may not be guaranteed due to shipping schedules, which are influenced by the transport market. These kinds of risks force Chinese firms to attach importance to IDM in their internationalization. A sufficient condition proposition for strategic importance of IDM can be summarized as:

Proposition 1c (P1c): If there is great uncertainty of product supply in terms of priority of product supply for the market and the distance between production site and the market, then IDM has strategic importance.

It is admitted in all cases that the existing competitors in European market generally have high or higher logistics service levels. Baosteel in case 3 regards expansion in the European market as a learning process, not only for its products but also for supply chain management. In order to compete against these competitors, the logistics service level of Chinese firms first has to reach the same level. A sufficient condition proposition for strategic importance of IDM can be summarized in formal terms,

Proposition 1d (P1d): If local competitors have high logistics service level, then IDM has strategic importance.

The firms studied in cases 1, 2, and 3 emphasized the complexity of their products and additional services, which makes the logistics process more complex. However, assuming similar products are sold in different markets, the character of products for domestic and European market is usually also similar, so the complexity of the logistics processes caused by the characters of the products should be similar in different markets as well. Long warranty time mentioned in case 2 and JIT delivery mentioned in case 3 can be seen as examples of very demanding customers' requirements or high competitors' service level. Therefore, no proposition is summarized for the candidate concept "character of products and additional services".

In case 4, low profit margins in the household appliances sector are mentioned as a reason for reducing logistics costs, which is not strongly supported by the majority of the cases. Moreover, profit margin is generally useful for internal comparison. It is difficult to accurately compare it between different firms, especially between firms in different sectors, because the expenditure of different firms vary greatly, so that comparison of profit margins between firms can have little meaning. In case 1, it is claimed that, due to the relatively high profit margins in telecommunications sector, the reduction of logistics cost is not a crucial task for Huawei at the moment. Although reduction of logistics costs is not crucial for Huawei as a whole firm, it is still an important task of the department of supply chain management. Moreover, the respondent of Huawei expects that the profit margin in the telecommunications sector may drop, so the reduction of logistics cost remains an important goal. Therefore, no proposition is summarized for the candidate concept "profit margin".

In case 3, Baosteel differentiated its products in terms of levels of logistics service — for automotive steel the efficiency of IDL system is considered very important, but for low value-added

steel it is relatively uncritical. The situation of Baosteel, with a great difference between product groups selling in European market, did not emerge in other cases. Moreover, Baosteel's products for European markets are mostly high value-added steel and this is also their product strategy for the developed markets, so no proposition is summarized for the candidate concept "low value-added product".

Case 1, 2, and 3 show that Chinese firms expect to set up long-term cooperation with European customers. In order to convince European customers to rely on a Chinese firm, it is important not only to provide product quality and competitive pricing, but also high quality of logistics services. However, no direct relation between long-term cooperation and strategic importance of IDM is claimed in any of the cases. The need for high quality of logistics services is caused directly by other concepts analyzed before, for example the customers' service level requirements. Long-term cooperation is basically a prerequisite for IDM being important. In two of the five cases, it is claimed that IDM is of no importance when there is no long-term cooperation. In case 2, Suntech categorized its customers into three levels. Service with an adequate level is provided to customers who belong to the lowest level. With these customers, the volume of business is low and duration of cooperation is usually short.⁵ In case 5, Chinese car manufacturers gave no attention to logistics services in short-term sales transactions. Despite other factors, such as demanding service level requirements from customers, great uncertainty of product supply, and higher logistics service level of local competitors in these two cases, IDM is not seen as important for short-term sales transactions. Hence the behavior can be summarized as a sufficient condition proposition as: in short-term sales transaction between a manufacturer and its customers, IDM has no strategic importance for the manufacturer. As a conclusion, the candidate concept "duration of cooperation" can be considered as a moderating concept, which is a prerequisite for the propositions of other independent concepts. In formal terms:

Proposition 2 (P2): If a manufacturer has or expects a short-term sales transaction with its customer, then IDM has no strategic importance. If a manufacturer has or expects long-term cooperation with its customer, then IDM may have strategic importance depending on the customers' service level requirements, threat of new entrants from emerging countries, supply from own production, and service level of its competitors.

11.2 Internal resources and the efficiency of IDL systems

As discussed in Chapter 7.1.1 on page 88, RBV will be applied as one of the explanatory theories. New MNEs have disadvantages when comparing their internal resources to that of the MNEs from developed countries. However, some successful new MNEs have managed to gain competitive advantages through generating and bundling adequate internal resources. The aim

⁵ The case of Suntech, where Europe has been its main market since establishing the firm, does not represent the situation of most Chinese MNEs, who are entering the European market. Most Chinese MNEs attach importance to customers even with low volume of business, in order to establish their presence in Europe.

of this section is to find candidate concepts concerning internal resources and their relation to the dependent concept — efficient IDL systems for Chinese firms’ investing in the European market. The relation is observed under the condition that IDM has strategic importance in a firm (see Figure 11.3). The first three cases from telecommunications, energy, and steel sectors are used as main sources for the analysis.

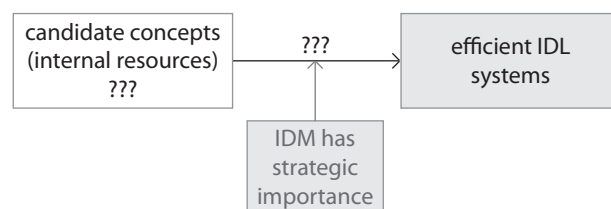


Figure 11.3: Defining candidate concepts concerning internal resources and their relation to the dependent concept “efficient IDL systems”

11.2.1 Relevant evidence

Table 11.4 summarizes evidence concerning internal resources mentioned in the cases that contribute to the efficiency of their IDL systems. The evidence is derived directly from the sources of the cases without manipulation. The evidence is roughly sorted according to the categorization introduced in Chapter 11.2.2.

11.2.2 Coding and data presentation

In order to facilitate a comparison of observations for building propositions, different internal resource aspects are classified according to the four categories introduced in Chapter 7.3 on page 99 — physical capital resources, financial capital resources, human capital resources, and organizational capital resources. Figure 11.4 assigns candidate concepts in the field of distribution management to these four categories.

Efficiency of IDL systems is observed in two aspects — customer service enhancement and cost reduction. Scores obtained through this coding procedure are presented in Table 11.5. The table lists candidate concepts leading to efficient IDL systems.

The physical capital resources category includes an internal ERP system which provides a communication platform for central and overseas functions. The financial capital resources category offers great potential for reducing logistics costs of Chinese firms as described in Chapter 7.3 on page 99, so defining and calculating process cost is important. The human capital resources category includes decisions about hiring local employees or sending Chinese employees abroad, or having a good combination of both.⁶ The organizational capital resources category includes three candidate concepts: organizational structure of a central logistics department with a coordinating function, standardization of processes and activities, and culture of continuous learning,

⁶ The meaning of “local and domestic personnel” is explained in the end of Chapter 5.4.3 on page 60.

Table 11.4: Evidence concerning internal resources for achieving efficient IDL systems

cases	example evidence derived directly from the cases
case 1	A well developed internal ERP system enables smooth communication between central and overseas functions.
	Huawei advocates localization, which means the majority of the employees in Europe are locals or Chinese with European background.
	Standardization of processes is essential for Huawei's international expansion. They are learning from IBM's experience in order to define standard processes on different organizational levels.
	Job rotation in the sense of international relocation of Chinese employees is a key human resource strategy for internationalization.
case 2	A "leader-oriented" culture enables full cooperation of all departments to achieve the goal decided by the leader. This also brings about the highly praised flexibility.
	The central function "Department of Group Planning" is responsible for the calculation of process costs, which is very important for logistics processes but often neglected by Chinese firms.
	The European headquarters in Switzerland employ almost exclusively local employees. However, this caused some internal communication problems between the central and local logistics departments. The proportion of employees with Chinese background is to be increased.
	The newly established Department of Group Planning is a central logistics department which also coordinates procurement, production, and sales.
	Conflicts can happen, for example between sales and logistics departments. Thus Suntech is strengthening internal communication through an open and flat organizational hierarchy.
	Process innovation is not less important than product innovation, especially in the field of international logistics. Suntech continuously seeks new possibilities to improve the logistics system.
case 3	An innovative culture of continuous self-negation and seeking new possibilities is the main character that brings Suntech success abroad.
	The distribution process from the production site in China all the way to European customers should be regarded as one whole process. Baosteel Europe plans, coordinates, and controls this process, in order to improve efficiency.
	In every European market, local sales and logistics managers are hired.
	By internalizing some external resources through JV, Baosteel can make better use of the resources from the Italian partner, control the distribution process, and accumulate experiences.
	Continuously learning, imitating, and then improving is important for a Chinese firm entering European market.
	Experience gained in the Italian market can be applied to other European markets, for example, the JIT distribution process in Spain is almost a carbon copy of the one in Italy.

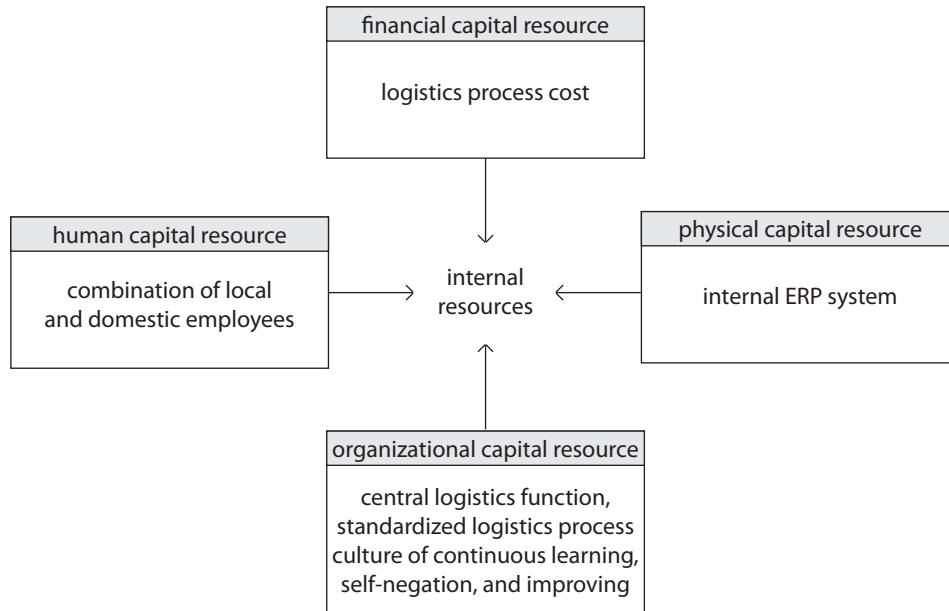


Figure 11.4: Influential aspects of efficient IDL from the internal resource point of view

Table 11.5: Candidate concepts concerning internal resources that increase the efficiency of IDL systems

candidate concepts \ cases		service			cost		
		1	2	3	1	2	3
internal ERP system		+			+		
calculation of distribution process cost			+	+		+	+
combination of local and domestic employees		+	+	+		+	
central logistics function			+	+		+	+
standardized distribution process		+		+	+		+
culture of continuous learning, self-negation, and modification			+	+		+	+

self-negation, and modification. Most of these concepts have a positive effect on both service and cost.

11.2.3 Data analysis

This group of propositions (proposition 3x) consists of concepts relating to internal resources which have a positive impact on the efficiency of IDL systems.

In the category of physical capital resources, the studied firms have mentioned very few factors which can bring them competitive advantages. This confirms the analysis in previous chapters which suggests that firms from emerging countries lack resources when entering developed markets. It also shows that obtaining external resources is crucial for these firms, as will be discussed in Chapter 11.3 on page 157. The importance of an ERP system for ensuring real-time communication between central and overseas functions was only mentioned in case 1. IT infrastructure has become a basic component of large firms and especially large MNEs, and ERP systems have been implemented in numerous large Chinese firms. The other studied firms did not consider it to be a crucial measure for bringing competitive advantages, so no proposition is presented for the candidate concept “internal ERP system”.

In case 2, Suntech is not satisfied with only calculating the cost of transport and warehousing separately. One respondent of Suntech claims, “The concept of process cost in the international business is important for cost reduction.” The Department of Group Planning of Suntech was working on the definition of logistics process and the calculation of the process cost. In case 3, Baosteel Europe started to combine formally separated processes into a whole process following the increase of the coverage of the international market, in order to reduce the overall cost while maintaining a guaranteed customer service level. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 3a (P3a): The calculation of the distribution process cost has a positive impact on the efficiency of IDL systems.

In case 1 and 3, both studied firms mentioned that they have a high proportion of experienced local employees. In most publications, it has always been suggested that hiring locals in foreign markets is important for improving communication and integration, because Chinese firms often do not have enough local employees hired for the foreign market. However, Suntech in case 2 reported their experience that having locals represent the vast majority of employees may cause internal communication problems and result in more mistakes. Suntech is now trying to have a good combination of local and domestic employees in its European headquarters. In case 4, Hellmann suggested that positions with more contact to the local market should be filled by locals, and positions with more contact to departments in home country can be taken by domestic employees. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 3b (P3b): A good combination of local and domestic employees in overseas subsidiaries, which ensure smooth communication both externally and internally, has a positive impact on the efficiency of IDL systems.

Due to growing challenges — complexity, customer service, and cost — in internationalization, both firms studied in cases 2 and 3 set up a central logistics department to have better control of the whole logistics process. The Department of Group Planning in Suntech is not only responsible for the logistics process, but also coordinates between procurement, production, and sales. The central logistics of Baosteel Europe is responsible for the logistics process from production site to European market and the coordination between production and sales. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 3c (P3c): A central logistics organizational unit, which is given the responsibility to coordinate the whole distribution process through different functions, has a positive impact on the efficiency of IDL systems.

In case 1, the studied firm was in the process of standardizing the inter-functional processes and the activities in every department with the goal of improving service level and reducing cost. One respondent said, “First we expand to foreign markets rapidly. When we begin to settle down in a foreign market, it is then important to take care of our processes. Standardization is essential for further expansion.” Firm in case 3 also felt the pressure of standardization with the increasing coverage of international markets. The central logistics department in Baosteel Europe was working on standardization of the logistics process. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 3d (P3d): Standardization of the distribution process throughout different functions and of detailed activities in each department has a positive impact on the efficiency of IDL systems.

In cases 2 and 3, the respondents expressed that Chinese MNEs in European market are in general not better than their competitors from developed countries in logistics processes, but what is important for them is to use this opportunity and keep learning or even imitating in order to improve. Suntech values process innovation in addition to product innovation. Here, process innovation can be understood as continuous self-negation and seeking new possibilities in order to improve the current logistics process. Baosteel’s purpose for setting up a JV in Italy is not only to enter the Italian market through the Italian partner’s distribution network, but also to gather experience and knowledge which can be used to enter other European markets on its own. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 3e (P3e): A culture of continuous learning, self-negation, and modification of the current distribution process has a positive impact on the efficiency of IDL systems.

11.3 External resources and the efficiency of IDL systems

As described in Chapter 4.2.2 on page 21, MATHEWS analyzed new MNEs from a resource-based perspective and extended the model to a so called OLI* framework — outward-oriented, linkage and leverage, integration.⁷ Linkage and integration are meant to find and use external resources due to the lack of internal resources of the new MNEs. Based on the analysis in Chapter 7.1.1 on page 88, distribution management can be considered basically as management of a set of more or less closely connected resources in a distribution network. This thesis focuses on the connection between Chinese firms and LSPs. The aim of this section is to find candidate concepts concerning external resources in cooperation with LSPs and their relation to the dependent concept — efficient IDL systems for Chinese firms' investing in European market. The relation is observed under the condition that IDM has strategic importance in a firm (see Figure 11.5). The first three cases from telecommunications, energy, and steel sectors are used as main sources for the analysis.

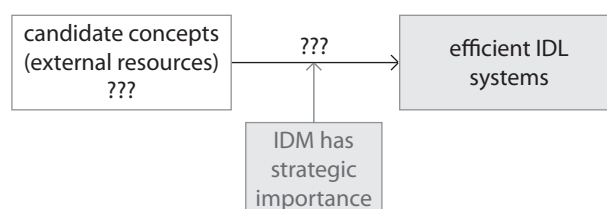


Figure 11.5: Defining candidate concepts concerning external resources and their relation to the dependent concept “efficient IDL systems”

11.3.1 Relevant evidence

Table 11.4 summarizes evidence concerning external resources mentioned in the cases that contribute to the efficiency of their IDL systems. Evidence is derived directly from the cases without manipulation. The evidence in the table is roughly sorted according to the categorization in Chapter 11.3.2.

11.3.2 Coding and data presentation

In order to facilitate a comparison of observations for building propositions, different external resource aspects are classified according to the analysis about the inter-organizational management presented in Chapter 5.4.2 on page 56 with the focus on cooperation with LSPs. The four classified aspects include the scope of outsourced activities, selection of LSPs, intensity of integration, control of the cooperation. As illustrated in Figure 11.6, specified resources for the field of distribution management are assigned to these four categories.

As with the analysis in Chapter 11.2.2 on page 152, the efficiency of IDL systems is examined from two aspects — customer service enhancement and cost reduction. Scores obtained through

⁷ See Mathews (2002), pp. 175–178.

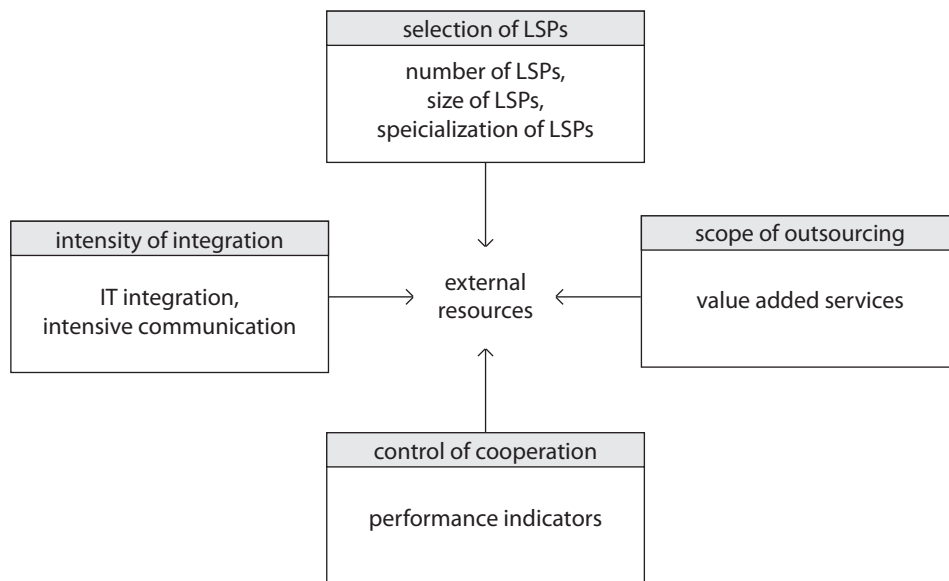


Figure 11.6: Influential aspects of efficient IDL from the external resource point of view

Table 11.6: Evidence concerning external resources for achieving efficient IDL systems

cases	example evidence derived directly from the cases
case 1	<p>Huawei outsourced the basic logistics activities, such as transport, warehousing, customs clearance, picking and dispatching to LSPs in Europe.</p> <p>Gradually, they will ask the LSP to provide more value-added services, such as setting up integrated warehouse management system with their IT system and providing regular performance report.</p> <p>Panalpina is supporting Huawei to develop a KPI system.</p> <p>In Europe, the experience and knowledge of LSPs are important for Huawei.</p>
	<p>Huawei is changing the strategy of double sourcing to single sourcing with one main LSP and one or two backup LSPs. This would make it easier to manage the cooperation and reduce costs, especially in the case of intensified cooperation with more value-added services.</p> <p>According to Huawei's experience, a medium-sized LSP is more suitable, so they can get more individual service with higher flexibility.</p>
	<p>So far the information exchange between Huawei and their LSP still takes place through traditional means, but an integrated information system can improve the working efficiency greatly. A pilot project is being worked on.</p> <p>The LSP is still not as flexible as expected. It is partly because of the difference in culture, but also partly because of the regulations in Europe that Huawei does not know.</p>
	<p>There is SLA in the contract with LSPs, but a systematic KPI system is now being developed.</p>

	<p>The basic logistics activities such as customs clearance, transport, warehousing, picking and dispatching are outsourced to LSPs.</p> <p>One value-added service that the LSPs provide at the moment is the JIT picking and delivery according to our customers' daily orders.</p>
case 2	<p>It is planned for the LSPs to take over more value-added services for after-sales service, including reparations with low technical content.</p>
	<p>In Europe, Suntech has two LSPs in order to avoid being dependent on one LSP. Based on their experience, they prefer medium-sized LSPs rather than ultra large LSPs.</p>
	<p>Suntech has realized an EDI connection with one of the LSPs in Europe. An integration of the IT systems is being carried on in order to reduce manual work and mistakes.</p> <p>The goal is to have IT integration with all their LSPs worldwide.</p>
	<p>Suntech has developed an evaluation system with detailed KPIs for LSPs. It helped to increase their service level.</p>
	<p>Basic logistics activities are outsourced to LSPs.</p> <p>For the JIT delivery to car manufacturers, LSPs offer JIT delivery service.</p>
case 3	<p>In the future, if Baosteel decides to have shear centers in Europe, more value-added services are expected from LSPs.</p>
	<p>While choosing LSPs in Europe, Baosteel tries to avoid very large ones. Large LSPs are only used temporarily when no suitable local ones are found.</p> <p>Local LSPs, who are familiar with the local market, are preferred</p>
	<p>Hellmann offers Midea a complete service from its production site in China to its customers in Europe, such as Saturn or Media Markt, and the reverse logistics as well.</p> <p>Hellmann can offer not only services for operative activities, but also consultancy about design and optimization of logistics processes to Chinese firms, because they have the knowledge and experience in European market that Midea is probably lacking.</p> <p>Apart from logistics consultancy, Hellmann set up a network to provide Chinese firms a large variety of services they may need while entering European market. Helping Chinese firms gain knowledge about the European market can make cooperation easier and more efficient.</p>
case 4	<p>Chinese firms should concentrate on one or few LSPs, who can provide a range of services to help them run the business in European market.</p> <p>When specialized services are needed, for example reverse logistics for electrical parts, then Chinese firms should choose specialized LSPs in this field.</p>

	<p>So far there is no IT integration with Chinese customers. It will be helpful to have IT integration when the business grows.</p> <p>Open and intensive communication is important, so Hellmann has employees with Chinese background to ease the communication.</p>
case 5	<p>BLG and Mosolf offer all logistics services from the point when the cars arrive at European harbors until they are delivered to the customers.</p> <p>The most important service are value-added services for cars, which can be described as a “prolonged assembly line” of a car manufacturer.</p> <p>Only with BLG’s value-added service could Kia enter the European market and compete with the same service level against European competitors.</p> <p>BLG sees themselves as the “prolonged knowledge base” for Chinese car manufacturers as well. They can help them design the distribution process.</p> <p>For specialized services, such as value-added services for cars, Chinese firms should choose LSPs who are specialized in this field despite the size of the LSPs.</p> <p>In the startup phase, BLG would prefer to have staff from car manufacturers to work with them intensively in Europe.</p> <p>Chinese car manufactures need to realize the importance of SLA and define relevant KPIs.</p>

this coding procedure are presented in Table 11.7, which lists candidate concepts which lead to efficient IDL systems. Regarding the scope of logistics outsourcing, an important point of discussion is whether to outsource value-added services and which services should be outsourced. In terms of selecting LSPs, there are two important aspects for Chinese firms other than the number of LSPs to use: whether to use single, double, or multiple sourcing, the size and specialization of the LSPs. In terms of intensity of integration, although Chinese firms are still in the beginning stage of their internationalization, IT integration with LSPs has become an important topic. Personal communication is considered to be the way of solving problems caused by cultural difference and Chinese firms’ lack of experience and knowledge about European market. In terms of control of cooperation, the candidate concept “application of performance indicators” is introduced. Most of the concepts have a positive effect on both service and cost.

11.3.3 Data analysis

This group of propositions (proposition 4x) lists concepts relating to external resources which have a positive impact on efficiency of IDL systems.

Concerning the scope of logistics outsourcing, value-added services were considered an important measure for efficient LDL systems in all the studied cases. On one hand, Chinese firms are not only outsourcing basic logistics activities, but also involving LSPs for more value-added services, such as picking and JIT delivery, after-sales service, consultancy, etc. On the other hand, LSPs

Table 11.7: Candidate concepts related to external resources which increase the efficiency of IDL systems

candidate concepts \ cases	service					cost				
	1	2	3	4	5	1	2	3	4	5
outsourcing value-added services	+	+	+	+	+	+	+			
concentration on cooperating with one or few LSPs		+		+		+	+		+	
cooperation with medium-sized LSPs	+	+	+			+		+		
cooperation with specialized LSPs				+	+					+
IT integration	+	+		+		+	+		+	
intensive personal communication	+			+	+					+
application of performance indicators	+	+			+	+				

are prepared to offer more value-added services, such as design and optimization of distribution processes, or technical support which they think that Chinese firms need while entering European market. Using the resources of LSPs and making them an extension of their own resources can improve the customer service level. Cases 1 and 2 also indicate the possibility of cost reduction. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 4a (P4a): Expanding the scope of logistics outsourcing by getting value-added services from LSPs leads to higher efficiency of IDL systems than only outsourcing basic logistics activities.

There is a difference between selecting LSPs for inter-continental transport and for logistics in Europe. For inter-continental transport, Chinese firms usually follow a multiple sourcing strategy and have several carriers.⁸ For Europe-wide logistics, Huawei in case 1 moved from double sourcing to single sourcing under the consideration of cost reduction. In case 2, Suntech considers a double sourcing strategy more cost efficient and providing better control of the service level than multiple sourcing, but less dependent than single sourcing. In case 3, Baosteel has several LSPs due to the character of its product. The weight of steel products demands a more direct transport with little handling. Thus Baosteel has in general one local LSP in each country or region, which can also be considered as single sourcing. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 4b (P4b): Single or double sourcing (concentration on cooperating with one or two LSPs) for the logistics activities in the sales market (not including the inter-continental transport) leads to higher efficiency of IDL systems than multiple sourcing.

⁸ In general, Chinese firms do not outsource the whole process to one or two LSPs. For the inter-continental transport, Chinese firms can usually get better volume discount when they have shipment to different continents.

In cases 1, 2, and 3, the studied Chinese firms claim that they get better service from medium-sized LSPs than from large ones.⁹ In case 5, the two LSPs agree with this standpoint of Chinese firms and also confirm that medium-sized LSPs see Chinese firms as important potential customers for the future, so they are willing to provide them with better services. However, the LSPs studied in cases 4 and 5 argue that if only basic logistics activities or value-added services without specialized activities in a certain field are to be outsourced, medium-sized LSPs can be a good possibility for lower price and better service. If specialized services are required, then a large LSP specialized in this field is a better choice for getting professional service and knowledge in this field. Nevertheless, it is often difficult to distinguish which services must be outsourced to specialized LSPs and which can be outsourced to medium-sized LSPs. The decision of selection depends very much on the firms' individual requirements and the available LSPs. Two sufficient condition propositions for the efficiency of IDL systems can be summarized according to the outsourced activities:

Proposition 4c (P4c): If basic logistics activities and value-added services without specialized activities are to be outsourced to LSPs, cooperating with medium-sized LSPs leads to higher efficiency of IDL systems than cooperating with large LSPs.

Proposition 4d (P4d): If specialized activities are to be outsourced to LSPs, cooperating with specialized LSPs in this field (usually relatively large LSPs) has a positive impact on the efficiency of IDL systems.

In cases 1 and 2, both studied firms emphasize the importance of IT integration with LSPs. Although communication still mostly uses traditional means, both firms are working on pilot projects or have started with the integration partially. "Manual work and double booking have caused extra manpower and mistakes," said one respondent of Suntech. From the LSPs' side, they are ready to provide support to Chinese firms in IT integration. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 4e (P4e): Integration of IT systems between a manufacturer and its LSPs has a positive impact on the efficiency of IDL systems.

Cultural differences have always been discussed in the context of the internationalization of a firm. In case 1, Huawei believes that culture difference can be one of the reasons for the difference in flexibility. Another reason can be that Chinese firms are not aware of the European market and regulations. Huawei's solution for the culture difference and unbalanced knowledge level is having one of its LSP's employees work at Huawei on-site. In case 4, Hellmann has employees with Chinese background who communicate with their Chinese customers. In case 5, BLG does not think that they need to have their own employees with Chinese background for Chinese firms, because they did not need to have employees with Korean background for Korean car

⁹ For a comparison of medium-sized and large LSPs and the analysis about the reasons, see Chapter 10.1.4 on page 121 and Chapter 10.2.4 on page 128.

manufacturers 15 years ago, but BLG claims that it was important to have staff from Korean firms to work on-site in Europe with them, especially in the startup phase. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 4f (P4f): Intensive personal communication during the cooperation, especially in the startup phase, has a positive impact on the efficiency of IDL systems.

Although performance indicators have been discussed intensively and also implemented in many firms in Europe, Chinese firms have just started with this concept. In case 1, Huawei was upgrading its KPIs systematically with the support of its LSP. Suntech is relatively advanced compared to other studied firms in having a systematic evaluation system for its LSPs. Moreover, Suntech is continuously modifying and expanding its evaluation system with new defined indicators. In case 5, according to its experience with Korean car manufacturers, BLG claims the application of performance indicators and the improvement of IDL systems' efficiency complement each other in a process of gradual improvement. A sufficient condition proposition for the efficiency of IDL systems can be summarized as:

Proposition 4g (P4g): Application of performance indicators has a positive impact on the efficiency of IDL systems.

11.4 The case where IDM has no strategic importance

All the interviewed firms consider IDM being important for their whole business in the European market. According to the analysis for Proposition 2, IDM has no strategic importance for the manufacturers only in the case of short-term sales transactions. In order to examine whether Propositions 3x and 4x are still valid under the condition that IDM has no strategic importance, a short telephone interview was conducted with the respondents from the firms in case 1, 2, and 3. Before the telephone interview, the respondents were informed about the list of proposition 3x and 4x. During the telephone interview, the analysis process and the results of the case study were first shortly introduced, and then the respondents were asked about their opinion about the validity of the propositions in short-term sales transactions according to their experience. The collected data are coded and presented in Table 11.8.

The results from the telephone interviews are:

- Propositions P3b, P3c, P3d, P3e, P4b, and P4d are not relevant.
- Propositions P3a, P4c, and P4f are considered to be true. Some respondents regard P3a and P4c to be partly true, because the investment for these measures, such as calculation of process cost or intensive personal communication with LSPs, might be higher than the possible saved cost.
- Propositions P4a, P4e, and P4g are considered to be false, because the respondents claim that the investment for cooperation in value-added service or IT integration are unnecessary and will lead to higher cost for the firms.

Table 11.8: Validity of the propositions when IDM has no strategic importance

proposition	case 1	case 2	case 3
P3a	true	partly true	true
P3b	irrelevant	irrelevant	irrelevant
P3c	irrelevant	irrelevant	irrelevant
P3d	irrelevant	irrelevant	irrelevant
P3e	irrelevant	irrelevant	irrelevant
P4a	false	irrelevant	false
P4b	irrelevant	irrelevant	irrelevant
P4c	true	true	true
P4d	irrelevant	irrelevant	irrelevant
P4e	false	false	irrelevant
P4f	true	true	partly true
P4g	false	irrelevant	irrelevant

The lack of importance of IDM makes efficient IDL systems irrelevant for gaining competitive advantages, so firms attach no importance to IDL, which means resources are not used for IDL. Therefore, most of the independent concepts are irrelevant to the efficiency of IDL systems.

In Figure 8.2 on page 105, the concept “strategic importance of IDM”, which is influenced by the concept “market”, is assumed to be a moderating concept, which qualifies the relation between the independent concept “resource” and dependent concept “efficient IDL systems”. In formal terms:

Proposition 5 (P5): If IDM has no strategic importance in a firm’s internationalization, calculation of distribution process cost, cooperation with medium-sized LSPs, and intensive personal communication during the cooperation still have a positive impact on the efficiency of IDL systems; but expanding the scope of logistics outsourcing, integration of IT systems with its LSPs, and application of performance indicators have a negative impact on the efficiency of IDL systems.

Propositions describing a moderating concept can be formulated and tested in terms of the effect of independent concept on a dependent concept for different values of the moderating concept.¹⁰ This part of the case study can be considered an initial test for the moderating function of the concept “strategic importance of IDM”.

¹⁰ See Dul & Hak (2008), pp. 85–86.

Chapter 12

Summary: a model of efficient IDL systems

This case study research explored the importance of IDM and the measures for achieving efficient IDL systems for Chinese firms entering European markets. Entering developed markets is extremely challenging for Chinese firms, who often lack required resources. The results of this case study research are:

- descriptions of distribution logistics systems of Chinese firms who are successful in their internationalization in the European market,¹
- a set of propositions for efficient IDL systems.²

Figure 12.1 and Figure 12.2 illustrate the conceptual model of efficient IDL systems for Chinese firms entering the European market. The set of propositions are organized in four parts:

- In the first part, “market” concepts which influence the importance of IDM are studied (see Figure 12.1). Five propositions describe which market factors influence the strategic importance of IDM when a Chinese firm invests in European markets and how. IDM has no strategic importance only in some very limited conditions. Duration of cooperation is the moderating concept that qualifies the relation between the four independent “market” concepts and the dependent concept “strategic importance of IDM”. Logistics is generally not the trigger for Chinese firms to enter developed markets, but its strategic importance for establishing the business in developed markets is presented through this case study research. The importance of IDM is then the trigger for improving the efficiency of IDL systems.
- In the second and third part, internal and external resources that influence the efficiency of IDL systems are studied under the condition that DIM has strategic importance (see Figure 12.2). Five propositions describe which internal resources influence the efficiency of

¹ See Chapter 10 on page 117.

² See Chapter 11 on page 145.

IDL systems and how. Due to a lack of internal resources for entering developed markets, obtaining external resources is extremely important for Chinese firms. Seven proposition describe which external resources influence the efficiency of IDL systems and how.

- In the situation when IDM has no strategic importance, it is usually not necessary for a firm to invest resources to achieve an efficient IDL system. In the fourth part, the propositions about internal and external resources are tested for relevance in the situation when IDM has no strategic importance.



Figure 12.1: A model of efficient IDL systems for Chinese firms entering developed markets — market factors and the strategic importance of IDM

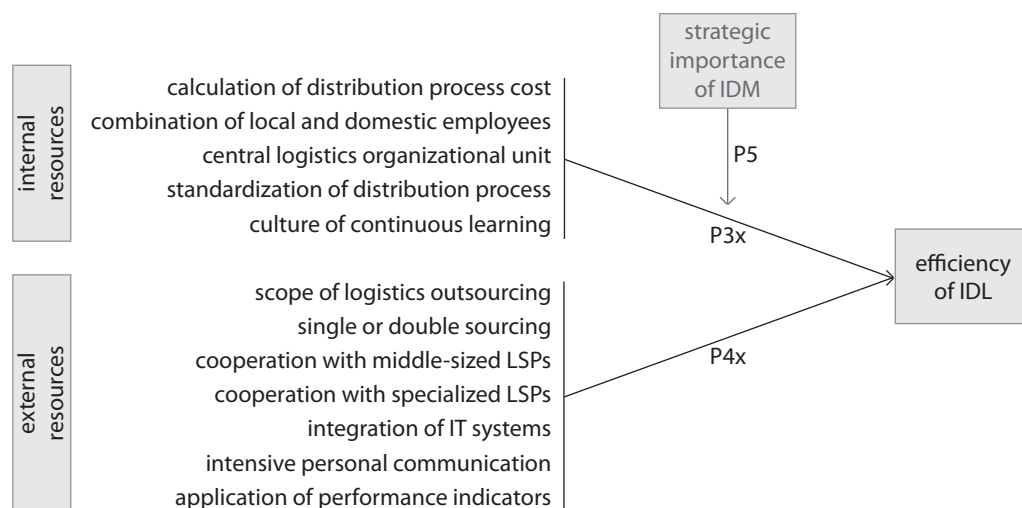


Figure 12.2: A model of efficient IDL systems for Chinese firms entering developed markets — resource factors and the efficiency of IDL systems

As described in Chapter 9.2 on page 111, this theory-building research was kept simple with a limited number of cases. Therefore, it is necessary to test the propositions with a bigger population in the same domain or even in a bigger domain, in order to provide a possibility for generalization of the propositions. In Part IV, this set of propositions will be tested with Chinese manufacturing firms investing through FDI in European and North American markets.

Part IV

Theory-testing research and managerial implications



Chapter 13

Research method and approach

A list of propositions was generated through a comparative case study with a limited number of cases in Part III. As described in Chapter 9.1 on page 109, this part deals with the third type of activities which contribute to developing theories — theory-testing research, which is aimed at testing the proposition formulated in Part III in order to have a contribution to theory development and practical implications. A larger sample in an extended domain will be used to test these propositions. The first section of this chapter will explain the case study methodology for theory-testing research. The following sections will then describe the research approach for this research work, including case selection, formulating hypotheses and defining measurements, and data collection.

13.1 Theory-testing through comparative case study

There are two reasons for theory-testing research: to increase the robustness of a theory and/or to make a theory more generalizable.¹ Theoretically it is possible to use either surveys or case studies for testing the previously developed propositions. In practice there are some limitations for conducting a survey:

- The number of Chinese firms who successfully entered European or North American markets with FDI is very limited.
- It is difficult to get feedback from Chinese firms through questionnaires.²
- There is doubt about the validity of the answers, because the concept of logistics is not very developed in China. Questionnaires may cause misunderstandings because they make additional explanations difficult. Direct personal communication can lead to higher quality results.

¹ See [Dul & Hak \(2008\)](#), p. 64.

² See, for example, [Böhnlein & Meier \(2009\)](#), pp. 35–36. Their questionnaire had a return rate of 3.8%. Based on personal experiences, Chinese firms are generally not willing to answer questionnaires or interviews.

This thesis uses the case study approach to test the developed propositions with carefully selected cases.³ Although the limited number of samples is a hurdle for the survey approach, this does not mean that the case study method is an inferior approach in this case. The case study approach has been criticized by empirical positivists who claim that many case study research reports include no explicit steps to create and test the theory. Moreover, case study research is claimed to have high accuracy but low ability for generalization.⁴ However, YIN argues that case studies can test a theory through “analytic generalization”, which is in contrast to “statistical generalization” used in a survey.⁵

The logic of using case studies and surveys for theory-testing is different. Statistical generalization in a survey makes an inference about a population or universe on the basis of the data collected from samples of that universe. Unlike statistical generalization, case studies follow “analytic generalization”, which is generalizable not to population or universe, but to a theory of the phenomenon being studied — for this thesis these are the propositions generated in Part III.⁶ Thus cases in theory-testing research should not be chosen as sampling units like samples in a survey, but rather as new experiments in a laboratory investigation. The assumption is that the propositions have much wider applicability than the five studied cases in Part III and these propositions can contribute to a general theory of the phenomenon. The approach of analytic generalization is to use the previously developed theory (propositions) as a template and compare the results of new case studies with it.⁷ Therefore, the case study determines whether the theory is supported by the one or several cases.

Propositions developed in Part III are all sufficient condition propositions. DUL & HAK suggest “single case study” for testing sufficient conditions as the second preferred research method ranked after “experiment” and before “survey”.⁸ A hypothesis can not be really confirmed by a single case study, because the co-occurrence of both independent and dependent concepts in an instance does not necessarily mean that the independent concept is a sufficient cause for the dependent concept. However, such a hypothesis can be rejected by one single case if the independent concept is present but the dependent concept is absent. Therefore, the idea of the single case study approach can be described as “failure to find rejections of the hypothesis in many different attempts (replications) provides confidence that the proposition might be generalizable to the theoretical domain, [...]”⁹ YIN claims that if two or more cases support the same theory, then replication can be claimed. The results are considered to be more potent if two or more cases not only support the same theory, but also fail to support a rival theory.¹⁰ This follows a replication logic analogous to that of multiple experiments.¹¹ Based on these arguments, a serial single case study, which can also be seen as a comparative case study, is used for this theory-testing research. The aims of replication are:

³ For the criteria and the process of case selection, see Chapter 13.2 on the facing page.

⁴ See Woodside (2010), pp. 65–66.

⁵ See Yin (2009), p. 15 and p. 38.

⁶ The terms “statistical generalization” and “analytic generalization” were defined by Yin (2003), pp. 31–33.

⁷ For a detailed description of the process of analytic generalization see Becker (1990).

⁸ For reasons why a single case study is preferable to a survey see Dul & Hak (2008), p. 77.

⁹ Dul & Hak (2008), p. 78.

¹⁰ See Yin (2009), pp. 38–39.

¹¹ See Barlow & Hersen (1984), p. 56.

- finding whether the propositions can be reproduced in the same domain in order to increase robustness of the theory;
- investigating the generalizability of the propositions by extending the boundary of the domain.

13.2 Selection of firms

Since a survey follows a different logic than a case study, namely a “sampling” design as opposed to a “replication” design, the selection of cases for a serial case study is also different from that of a survey. Each case needs to be carefully selected according as either:¹²

- a literal replication that is predicted to duplicate the same results as the to be tested theory,
- or a theoretical replication that is predicted to get contrasting results.

According to [YIN](#), in order to get substantial support for the initial proposition, about two to four cases are needed for each side — literal and theoretical replication.¹³

The domain for this theory-testing research is designed to be wider than the domain for the theory-building research in Part [III](#). Not only Chinese firms who invest in Europe, but also the ones investing in other developed markets are included in the domain. Thus, the domain for this theory-testing research is defined as “Chinese manufacturing firms having FDI with sales/distribution activities in developed markets.” A pool of candidate cases were collected during the whole research process in two ways:

- Literature research. The sources include, for example, the list of firms in [ROLAND-BERGER](#),¹⁴ [BCG](#),¹⁵ [DCW](#),¹⁶ and a range of publications about the internationalization of Chinese firms.¹⁷
- Exploration of practice. The sources are the interviews with firms during the theory-building research.

The listed firms from these sources do not always fall within the defined domain, for example some firms are not in the manufacturing sector. The list of [DCW](#) includes not only Chinese firms who have already entered foreign markets, but also firms who are planning for an FDI in

¹² See [Yin \(2009\)](#), p. 54.

¹³ See [Yin \(2009\)](#), pp. 54–55. For a good example of case selection for a comparative case study see [Szanton \(1981\)](#).

¹⁴ See [Rolandberger \(2007\)](#), p. 45.

¹⁵ See [BCG \(2009\)](#), p. 14.

¹⁶ See [DCW \(2009\)](#).

¹⁷ See for example [Shi \(2004\)](#); [Lu \(2007b\)](#); [Li \(2009a\)](#) and previous reports from 2007 and 2008; [Zheng \(2009\)](#).

the near future.¹⁸ Moreover, most Chinese firms have expanded their business to neighboring countries or other developing markets, but not to the developed markets yet. Furthermore, some outward FDI activities are in the field of procurement, which means purchasing raw material, technology, or equipment for Chinese market. These cases can not be included as candidate cases for this research, so the lists of firms were filtered using available information. The tasks of filtering and finding contact persons of the candidate cases were supported by students of the Chair of Management & Logistics, Technische Universität Darmstadt. The information about the firms and the corresponding contact persons is gathered from publications and the firms' websites, and through personal contacts.

Ideally, in order to get a certain number of cases for literal replication and theoretical replication for testing one proposition, it is necessary to measure the value of an independent or dependent concept before the actual test is conducted. However, in this research it is not feasible to demand the candidate firms to provide their value of the relevant concepts.¹⁹ According to DUL & HAK, an alternative strategy for case selection is to verify a candidate case during the measurement phase of the study.²⁰ Following this alternative strategy, a firm from the pool of candidate cases which is willing to provide information for the case study was simply selected as a case. It was verified during measurement whether the concepts were indeed present and whether it was a case of literal or theoretical replication. If the concepts are not present in the selected case, then it can not be used and another case needs to be selected for testing. The goal is to have two to three literal replications for each proposition and if possible also theoretical replications. The decision for whether another case is necessary and which concepts still need to be measured are based on the result of the previous case.²¹ The information of the selected cases will be presented in Chapter 14.1 on page 182.

13.3 Measurement

In Part III the term “proposition” is used to describe a statement about the relation between two concepts. A **hypothesis** is used to describe a proposition that is to be tested in a study.²² In addition to Table 9.1 on page 110, Table 13.1 explains three more relevant terms in research methodology.

¹⁸ Although these firms can also be candidate cases, distribution logistics often does not have the priority in the planing of internationalization by Chinese firms. The majority of these non-internationalized Chinese firms will probably not enter developed markets as the first step either. Moreover, there is doubt about the validity of their estimation about the developed markets and their resources before gaining experiences in these markets.

¹⁹ The main reasons are on one hand the low availability of the Chinese firms willing to do interviews, and on the other hand the manpower requirement for such a pre-study.

²⁰ See Dul & Hak (2008), p. 93.

²¹ Yin suggests a feedback loop in case study research. See Yin (2009), pp. 56–58.

²² See Lee & Lings (2008), pp. 128.

Table 13.1: Definition of relevant terms in research methodology for theory-testing
(Source: [Dul & Hak, 2008](#), pp. 93–94, p. 283, and p. 291; [Lee & Lings, 2008](#), pp. 127–130 and p. 140.)

terms	understanding of the terms
hypothesis	A hypothesis is a statement about a relation between variables. The statement represents the proposition which is being tested and predicts the expected observation in empirical data.
variable	A variable is a measurable indicator of a concept.
measurement	Measurement is a process of defining variables and generating their values for analysis.

13.3.1 Variables and hypotheses

The first step of measurement is formulating a precise definition of each concept — variables and their value, and then the propositions can be transformed into hypotheses based on the variables. Perceptual measures are used for some of the variables. According to [LU *et al.*](#), it is appropriate to use perceptual measures when firms are either unwilling or unable to provide financial measures.²³ The studies of [DESS & ROBINSON](#) and [GERINGER & HEBERT](#) show that perceptual measures of performance correlate well with objective measures of performance.²⁴ [KETOKIVI & SCHROEDER](#) confirm that both the reliability and the validity of perceptual measures of performance are satisfactory in their study.²⁵

In order to evaluate the dependent concept “strategic importance of IDM”, three questions were presented to the respondents:

- which hierarchical level of the firm is responsible for the international logistics;²⁶
- is logistics involved from the planning phase of internationalization;²⁷
- are human resources invested in projects of logistics optimization.²⁸

The respondents were not asked directly about the importance of IDM in their firms, because Chinese firms tend to always answer that logistics is important.²⁹ However, this is not always reflected by these firms’ business processes and organizational structures. Therefore, importance of IDM for each firm in the study is evaluated based on the answers to these three questions.

²³ See [Lu *et al.* \(2010\)](#), p. 425.

²⁴ See [Dess & Robinson \(1984\)](#); [Geringer & Hebert \(1991\)](#).

²⁵ See [Ketokivi & Schroeder \(2004\)](#).

²⁶ Organizational structure as an indicator of the importance of logistics, see [Pfohl \(2004\)](#), pp. 310–313. This indicator was applied in the survey “Trend and Strategies in Logistics”, see [Straube & Pfohl \(2008\)](#), p. 20–23.

²⁷ Business process as an indicator of the importance of logistics, see [Pfohl \(2004\)](#), pp. 337–340.

²⁸ PFOHL points out the importance of investment in optimizing logistics relevant processes. See [Pfohl \(2004\)](#), pp. 339–343. Financial resources invested in such projects will not be checked due to the difficulty of getting accurate data.

²⁹ See, for example, [Straube *et al.* \(2008\)](#), p. 17. The result of their questionnaire shows that the majority of the surveyed Chinese firms consider logistics to be very important. The percentage is higher than for the surveyed German firms.

The impact of the independent concepts of the “resources” category on the dependent concept “efficiency of IDL systems” was evaluated according to qualitative data about the firms’ service level and the cost of their IDL system. The variables for the dependent concept “efficiency of IDL systems” in the theory-testing research were defined in five detailed aspects, which were used for testing different propositions:

- customers’ satisfaction with the focal firm’s service,
- cost reduction of the IDL system through certain measures,
- the focal firm’s satisfaction with its LSPs’ service,
- the information flow between the focal firm and its LSPs,
- the focal firm’s satisfaction with its internal communication.

Table 13.2 summarizes the variables of dependent concepts. The cost of IDL systems is difficult to measure in this serial single case study due to the following reasons:

- In general, Chinese firms think that the price for logistics services in developed markets is much higher than in China,³⁰ so it is meaningless to ask about the satisfaction with the cost of their IDL systems.³¹
- A firm’s logistics cost is usually measured as a percentage of sales.³² However, it is difficult to get well calculated logistics cost of the IDL system of each firm³³ and a comparison between a limited number of firms from different sectors with different degrees of internationalization can not produce strong statements.

Therefore, the impact of the independent concepts on the cost of IDL systems were tested in single cases through checking whether there is cost reduction before and after the existence of one independent concept. If an independent concept is already present when the firm entered the market, the case can not be used for testing the cost impact. Table 13.3 presents the variables for the independent concepts from the “market” category. Table 13.4 and Table 13.5 present the variables for independent concepts “internal resources” and “external resources”. For detailed values of the variables, see interview questions in Appendix B.2 on page 219.

Based on the variables and their values, the propositions developed in Part III can be transformed into hypotheses. The propositions for the strategic importance of IDM are transformed into the following hypotheses:

Hypothesis 1a (H1a): For a firm having or expecting a long-term cooperation with its customer(s), if the demanded delivery time is generally shorter, and demanded

³⁰ For details, see the interview protocols in the theory-building research in Part III, such as Suntech (2009) and Hellmann (2009).

³¹ Satisfaction with the cost is not a recommended variable for measuring either.

³² For example, see the evaluation of logistics cost in the surveys of Straube & Pfohl (2008) and A. T. Kearney & GSCM (2010).

³³ This conclusion is based on own experience from the study in Part III.

³⁷ The four elements of delivery service are listed in Figure 5.5 on page 49.

Table 13.2: Variables of dependent concepts and their values

dependent concept	con- variable
strategic importance of IDM	responsibility within the firm's hierarchy for logistics
	involvement of logistics in the internationalization process
	human resources invested in logistics optimization projects
efficiency of IDL systems	customers' satisfaction with the focal firm's service in terms of delivery time, reliability, quality, and flexibility ³⁴
	cost reduction of the IDL system through certain measures in terms of the percentage of transport, warehousing, inventory capital, and/or administration costs as part of the sales of the market in a certain period of time ³⁵
	the focal firm's satisfaction with the LSPs' service in terms of delivery time, reliability, quality, and flexibility
	the information flow between the focal firm and its LSPs in terms of error rate, proportion of manual work or double booking in two systems, and proportion of real-time information exchange ³⁶
	the focal firm's satisfaction with the internal communication between the headquarters and the foreign subsidiaries.

Table 13.3: Variables of independent concepts "market" and their values

proposition	variable
P1a	demand delivery time, reliability, quality, and flexibility ³⁷ in this market compared to other markets
P1b	number of potential competitors from China and other emerging countries
P1c	priority of product supply compared to other markets
	distance between the production site and the target sales market
P1d	local competitors' delivery time, reliability, quality, and flexibility

Table 13.4: Variables of independent concepts “internal resources” and their values

proposition	variable
P3a	availability of process cost calculation of IDL systems
P3b	percentages of local and domestic employees in foreign subsidiaries
P3c	the extent of cross-subsidiary coordination of the logistics unit
	the extent of cross-functional coordination of the logistics unit
P3d	degree of standardization of activities in each department
	degree of standardization of the international distribution process
P3e	consideration of internationalization in developed markets as a learning process which is reflected in the availability of “continuous improvement process (CIP)” and the frequency of conducting changes or optimization projects in the firm

Table 13.5: Variables of independent concepts “external resources” and their values

proposition	variable
P4a	activities outsourced to LSPs
P4b	sourcing strategy for the logistics operation in target market (number of LSPs)
P4c and P4d	demand for specialized logistics or other services in specialized field from LSPs
	size of the LSP partner
	specialty of the LSP partner in the specialized field
P4e	degree of integration of IT systems in order processing, inventory management, track & trace
P4f	frequency of communication in the starting phase
	means of communication in the starting phase
P4g	implementation of KPIs in SLA
	availability of an evaluation system for LSPs

delivery reliability, quality and/or flexibility are higher in the developed market than that of the firm's domestic or other markets, then IDM is important or very important for this market.

Hypothesis 1b (H1b): For a firm having or expecting a long-term cooperation with its customer(s), if there are potential or existing competitors from China or other emerging countries entering this market, then IDM is important or very important for this market.

Hypothesis 1c (H1c): For a firm having or expecting a long-term cooperation with its customer(s), if the priority of product supply for this market is lower than for other markets and/or the distance between the production site and this market is long, then IDM is important or very important for this market.

Hypothesis 1d (H1d): For a firm having or expecting a long-term cooperation with its customer(s), if the existing competitors' delivery time is shorter, or delivery reliability, quality, and/or flexibility are higher than the firm's current service level in this market, then IDM is important or very important for this market.

As illustrated in Figure 12.1 on page 166, “duration of cooperation” is considered a moderating concept. All these four hypotheses should be tested with the firms who have or expect to have long-term cooperation with their customers. Proposition 2 can be transformed into:

Hypothesis 2 (H2): If a firm has or expects to have short-term sales transactions (no long-term cooperation) in the developed market or with certain customers in this market, then IDM is unimportant or of little importance for this market or for these customers.

Most propositions for the relation of “resources” and “efficiency of IDL systems” were transformed into two possible hypotheses depending on whether the independent concept has existed since the time the firm entered the market, or it was implemented at a time point t_0 after the market entry. Different variables for efficiency of IDL systems were used for different independent concepts. The propositions concerning “internal resources” for the efficiency of IDL systems are transformed into the following hypotheses:

Hypothesis 3a (H3a): If a firm conducted the calculation of process cost of its IDL system in one market at a time point t_0 after the firm entered this market, then there is a cost reduction from t_0 to a certain time point t_1 after t_0 .

Hypothesis 3b (H3b): If the percentages of local and domestic employees in the foreign subsidiaries of one market differ slightly or are roughly equal when the firm

entered the market, then the firm's customers in this market are satisfied or very satisfied with its service, and/or the firm is satisfied or very satisfied with the internal communication between the headquarters and the foreign subsidiaries.

Or if the number of local and domestic employees in the foreign subsidiaries of one market was not balanced before t_0 , and balanced at a time point t_0 after the firm entered this market, then the firm's customers are more satisfied with its service at a certain time point t_1 after t_0 than they were before t_0 , and/or the firm is more satisfied with the internal communication between the headquarters and the foreign subsidiaries at t_1 than before t_0 .

Hypothesis 3c (H3c): If a firm has one logistics organizational unit which coordinates the logistics processes for all the subsidiaries in one market and/or one logistics organizational unit which coordinates between logistics, production, and sales when the firm entered the market, then the firm's customers in this market are satisfied or very satisfied with its service.

Or if such a logistics organizational unit was founded at a time point t_0 after the firm entered this market, then the firm's customers are more satisfied with its service at a certain time point t_1 after t_0 than before t_0 , and/or there is cost reduction from t_0 to t_1 .

Hypothesis 3d (H3d): If the activities in each department and/or the international distribution process were standardized when the firm entered the market, then the firm's customers in this market are satisfied or very satisfied with its service.

Or if the standardization was conducted at a time point t_0 after the firm entered this market, then the firm's customers are more satisfied with its service at a certain time point t_1 after t_0 than before t_0 , and/or there is cost reduction from t_0 to t_1 .

Hypothesis 3e (H3e): If a firm considers its internationalization in a developed market as a learning process, which is reflected in supporting "continuous improvement process" and/or frequently conducting optimization projects for the logistics processes, then the firm's customers are more satisfied with its service at a current time point t_1 than a certain time point t_0 before t_1 , and/or there is cost reduction from t_0 to t_1 .

The propositions concerning "external resources" for the efficiency of IDL systems are transformed into the following hypotheses:

Hypothesis 4a (H4a): If a firm outsources not only basic logistics activities but also value-added services to LSPs from the beginning of the cooperation, then the firm's customers are satisfied or very satisfied with its services.

Or if a firm expanded the scope of its outsourcing to LSPs with value-added services

at a time point t_0 , then the firm's customers are more satisfied with its service at a certain time point t_1 after t_0 than before t_0 and/or the cost is lower than when the firm conducted these services itself.

Hypothesis 4b (H4b): If a firm applies a single or double sourcing strategy for the procurement of logistics services in its sales market, then the firm is satisfied or very satisfied with the LSPs' service.

Or if a firm changed from multiple sourcing to a single or double sourcing strategy at a time point t_0 , then the firm is more satisfied with the LSPs' service at a certain time point t_1 after t_0 than before t_0 .

Hypothesis 4c (H4c): For firms which outsource basic logistics services and value-added services without activities in specialized field to LSPs, if the firm cooperates with a medium-sized LSP, then the firm is satisfied or very satisfied with the LSPs' service.

Or under the same condition, if a firm changed its cooperation partner from a large LSP to a medium-sized LSP, then the firm is more satisfied with the medium-sized LSPs' service than that of the large LSP and/or the price for the service from the medium-sized LSP is cheaper than that of the large LSP.

Hypothesis 4d (H4d): For firms which require specialized logistics services or value-added services with activities in a specialized field from LSPs, if the firm cooperates with a large LSP in this specialized field, then the firm is satisfied or very satisfied with the LSPs' service.

Or under the same condition, if a firm changed its cooperation partner from a medium-sized LSP to a large LSP in the specialized field, then the firm is more satisfied with the large LSPs's service than that of the medium-sized LSP.

Hypothesis 4e (H4e): If a firm has full or partial IT integration in order processing, inventory management, and/or track & trace from the beginning of the cooperation with LSPs, then the firm is satisfied or very satisfied with the information flow with its LSPs.

Or if the IT integration was implemented at a time point t_0 after the cooperation started, then the firm is more satisfied with the information flow with its LSPs at a certain time point t_1 after t_0 than before t_0 .

Hypothesis 4f (H4f): If a firm has regular meetings in person, or staff working on-site with its LSPs during the starting period, then the firm is satisfied or very satisfied with the LSPs' service during this period.

Hypothesis 4g (H4g): If SLA with well defined KPIs and/or an evaluation system

for the service of LSPs was used from the beginning of the cooperation with LSPs, then the firm is satisfied or very satisfied with the LSPs' service.

Or if these two measures were implemented at a time point t_0 after the cooperation started, then the firm is more satisfied with the LSPs' service at a certain time point t_1 after t_0 than before t_0 .

Although most independent concepts in P3x and P4x have positive impact on both service quality and cost, as illustrated in Table 11.5 on page 154 and Table 11.7 on page 161, these hypotheses focus primarily on satisfaction with the service. Possible cost reduction is not considered in H3b and H4b–H4g. The possibility for cost reduction within these propositions was indicated in the cases in the theory-building research in Part III as a consequence of the improved quality of internal communication (in H3b), the improved satisfaction with the LSPs' service (in H4b–H4d, H4f, and H4g), and the improved information flow (in H4e). In these cases, it is not the concrete transport cost or warehousing cost that is reduced, but rather the transaction cost caused by problems such mistakes in the delivery or extra communication due to misunderstandings, which is not calculated by the firms. Therefore, cost reduction is not considered directly when testing these propositions.

One limitation of this case study approach is that the degree of the customers' satisfaction about the focal firm's service is not obtained directly from the firm's customers, but is an estimation by the firm itself. However, based on the experience from the case study in Part III, some Chinese firms do evaluate their customer service either through customers' feedback or from neutral third-party institutions.³⁸

As illustrated in Figure 12.2 on page 166, “strategic importance of IDM” is considered to be a moderating concept. Theoretically, all these hypotheses (H3x and H4x) should be tested with the firms who consider IDM having no strategic importance for their internationalization in one or more certain developed markets. According to the result of theory-building study described in Chapter 11.4 on page 163, the propositions P3b, P3c, P3d, P3e, P4b, and P4d are irrelevant if IDM has no strategic importance in the internationalization. The hypotheses corresponding to these propositions will not be tested in this case study. Propositions P3a, P4c, and P4f are considered to be true; P4a, P4e, and P4g are considered to be false. Therefore, the proposition concerning the moderating function of “strategic importance of IDM” (P5) is transformed into the following hypothesis:

Hypothesis 5 (H5): If a firm considers IDM to have no strategic importance for its internationalization, then H3a, H4c, H4f are true, and H4a, H4e, H4g are false.

13.3.2 Data collection

The theory-testing research based on a comparative case study was performed using interviews. In contrast to the interview method used in the theory-building research, the interview ques-

³⁸ See Huawei (2009).

tions for the theory-testing research were more structured. Based on the defined variables and their values for the hypothesis, it was possible to conduct a structured interview. However, this structured interview is not the same as a questionnaire of a survey, because most questions and answers can not be simplified into quantitative scales. Explanation is often needed for the respondents to understand the questions better and vice versa for me to understand the respondents' answer better. Moreover, interpretation of the answers with narrative information from the firms is needed, for example whether they have fully integrated the IT systems, or whether KPIs are well developed for controlling the cooperation with LSPs. Therefore, respondents were free to give narrative answers to the questions. The detailed interview questions are listed in [Appendix B.2 on page 219](#). The values of the variables listed in the four tables in [Chapter 13.3.1 on page 173](#) are the code for analyzing the data.

Instead of interviews in person, telephone interviews were conducted due to the long distance and limited financial funds. In order to find enough accurate information for each case, sometimes multiple telephone interviews with several respondents from a firm were conducted, based on the recommendation of the previous respondent. The first respondent of each firm is usually the person who is in charge of logistics or the foreign business, and sometimes they can not provide detailed information about, for example, the improvement resulting from setting up an evaluation system for LSPs, but can recommend another relevant person to provide just the needed information. This also highlights one of the advantages of using a case study approach for this study as opposed to using a survey.

In order to enhance the validity of the measurement, interview questions were tested by two respondents from case 1 and case 2 in the theory-building research. The reliability was ensured using measures similar to those measures applied in the theory-building research in order to avoid interview bias.³⁹ In addition, before the interviews took place, the respondents were informed of this study through a short presentation about the research topic, and the approach together with the interview questions. The respondents were asked to prepare information about one typical example in their foreign investment regarding a certain product group, a certain market, and certain important customers, because for a large firm with diverse product groups and foreign markets, it is meaningless to study it as a whole. All the interviews were conducted between April and December, 2010.

³⁹ For details, see the description in [Chapter 9.3 on page 113](#).

Chapter 14

Evaluation of the cases

In this chapter, the case study research for theory-testing will be presented. The first section of this chapter will describe the cases and direct results of the data analysis, and evaluate whether the hypotheses are supported or not. Based on the direct results, theoretical contributions of this study will be analyzed in the second section.

14.1 Data presentation and analysis

14.1.1 Description of the cases

Following the procedure of case selection described in Chapter 13.2 on page 171, a total of twelve firms provided valid cases for the study. Table 14.1 summarizes the basic profiles of these twelve firms and the sources of the data.¹ The firm code from F1 to F12 is sorted according to the sequence of the interviews. As column 2 shows, these firms span a variety of industries in the manufacturing sector, covering telecommunications, household appliances, electronics, medicine, machinery etc. Columns 3–7 summarize the degree of internationalization of these firms and the example market used for the case study. The information about the time when the firm entered foreign markets, the developed markets that the firms have entered, the example market, the time of entering this particular market, and the activities conducted in this market is given.² Columns 8 and 9 show the number of the interviews and the positions of the respondents.³ Strictly speaking, according to the defined domain of this research, Firm F11 does not fulfill the criteria for inclusion because it conducts no direct value-added activities in developed foreign markets by itself yet. However, Firm F11 has set up a comprehensive sales network worldwide, especially in developed markets, and is intensively planning a foreign direct investment in the

¹ The names of the firms were removed, since this was required by some of the respondents.

² For the aspects of the degree of internationalization see the analysis in Chapter 4.3.2 on page 33. The aspect of organizational commitment is not included in this table due to the complexity and diversity of this aspect in different firms.

³ The description of their positions in the last column is not exactly the same as the original names of their positions. It was interpreted and simplified according to their functions.

near future. Therefore, this firm is also included, with the year of entering foreign markets left blank. The information provided by F11 is based on its market studies.

14.1.2 Data analysis

As described in Chapter 13.2 on page 171, there are two kinds of replication — literal and theoretical replication — that can provide confidence that the proposition can be generalizable to the theoretical domain. For the hypotheses listed in Chapter 13.3.1 on page 173, if the case is a literal replication, then it means that the independent concept exists and the dependent one also exists. If the case is a theoretical replication, then it means the dependent concept does not exist and the independent one does not exist either.

Market factors and strategic importance of IDM

To examine the relation between market factors and the strategic importance of IDM, it is necessary to first find out whether IDM has importance in the internationalization to developed markets of a firm. Table 14.2 shows the importance of IDM in each firm. The respondents were asked about the hierarchical level which is responsible for IDM, involvement of logistics in the process of internationalization, and human resources invested in logistics optimization projects. Column 5 shows the evaluation of the importance of IDM in each firm based on the given information. In two out of twelve firms — F5 and F8 — IDM was found to be of little importance. In the remaining ten firms, IDM is evaluated to be important or very important. A comparison of column 5 and 6 shows that IDM has little importance in the firm (F8) which has short-term sales transaction with its customers. The remaining eleven firms all have relatively long-term sales transactions with their customers, but IDM is not necessarily important for these firms, as can be seen with F5. The information in this table can not yet strongly confirm whether “duration of cooperation” is a moderating concept between market factors and the importance of IDM.

Table 14.3 examines the relation between service level and the strategic importance of IDM. The first half of the table (columns 2 to 5) shows the service level requirements of each firm’s customers in developed markets. Customers in developed markets generally require shorter delivery time and higher delivery reliability. Nine out of twelve firms claim that their customers in developed markets demand shorter delivery time, and eleven out of twelve firms claim that they demand higher delivery reliability compared to their domestic customers or customers from other developing markets. As for the requirement of delivery quality, seven out of twelve firms think that there is no difference between customers from developed and developing markets. The remaining five firms claim that their customers from developed markets require higher delivery quality. Concerning delivery flexibility, four out of twelve firms think that there is no difference, while seven out of twelve claim that customers in their developed markets have more demanding requirements for delivery flexibility. F5 claims less demanding requirements for delivery flexibility and equal requirements for delivery time, reliability, and quality. As explained

Table 14.1: Basic profiles of the twelve firms used for theory-testing research and source of data

firm code	sector (or main products)	degree of internationalization					respondents	
		year of entering foreign markets	entered developed markets	example market (case study)	year of entering this market	value-added activities in this market	number	position
F1	telecommunications	1995	North America (NA), EU, Korea	EU	2005	sales, distribution, R&D	2	logistics manager, logistics staff
F2	electronics	2001	USA, Italy, Singapore	USA	2001	production, sales, distribution	1	logistics manager
F3	household appliances	2004	EU	EU	2007	sales, subcontracting	2	sales manager, logistics staff
F4	industrial computers	2007	EU	EU	2009	sales, distribution	1	general manager
F5	medicine	2001	NA, EU, Australia, Japan	NA	2002	clinical practice, sales, distribution	1	logistics manager
F6	household appliances & electronics	1999	USA	USA	1999	sales, distribution, R&D	1	sales manager
F7	automotive glass	1994	NA, EU, Japan, Korea	NA	2001	production, sales, distribution	2	logistics managers
F8	heavy machinery	2000	NA, EU, Australia, Japan	NA	2005	sales, distribution	1	logistics manager
F9	machinery	2005	NA, EU, Australia	EU	2007	sales, distribution	2	sales manager, logistics manager
F10	medicine	1993	Canada, Singapore, Korea, Australia	Australia	2005	sales, distribution	1	sales manager
F11	sanitary ware	–	NA, EU, Australia, Japan	NA	–	sales through agents, OEM	1	sales manager
F12	household appliances	2007	USA, EU, Australia	EU	2007	sales, distribution, R&D	1	logistics manager

Table 14.2: The importance of IDM and the expected duration of the sales transaction

firm code	hierarchical level that is responsible for IDL	involvement of logistics in the process of internationalization	human resources invested in logistics optimization projects	importance of IDM	expected duration of the sales transaction
F1	business field	conception	staff specialized for projects	very important	>3 years
F2	departmental	planning	staff for day-to-day business participate in projects	important	1–3 years
F3	business field	conception	staff specialized for projects	very important	1–3 years
F4	departmental	planning	staff for day-to-day business participate in projects	important	>3 years
F5	departmental	planning	no projects so far	of little importance	1–3 years
F6	business field	conception	staff for day-to-day business participate in projects	very important	>3 years
F7	business field	conception	staff specialized for projects	very important	>3 years
F8	departmental	implementation	no projects so far	of little importance	short-term sales transactions
F9	business field	implementation	staff for day-to-day business participate in projects	important	1–3 years
F10	departmental	planning	staff for day-to-day business participate in projects	important	1–3 years
F11	business field	planning	staff for day-to-day business participate in projects	important	1–3 years
F12	business field	conception	staff for day-to-day business participate in projects	very important	> 3 years

by the respondent, a possible reason for such a different answer could be the characteristics of their product — Chinese medicine. Customers who are convinced by their products are more tolerant in terms of logistics services. Another possible explanation is that the competition is lower in foreign markets than in its domestic market. This can be seen from the second half of the table, where F5 and F10, both specializing in Chinese medicine, could not assess the situation of competitors in developed market. Considering all four aspects in service level, ten cases out of twelve firms except F5 and F8 are literal replications that confirm hypothesis H1a. F5 is a theoretical replication that also confirms hypothesis H1a.

The second half of Table 14.3, column 6 to 9, shows the service level of the focal firms' competitors in developed markets. As can be expected from the data about the customers in developed markets, they have shorter delivery time and higher reliability in general. Most focal firms do not think that their competitors have higher delivery quality than them, and five out of nine firms⁴ claim that their delivery flexibility is at the same level as that of their competitors. Considering all four aspects in service level, eight out of nine firms (all except F8) are literal replications which confirm hypothesis H1d.

The first half of Table 14.4, columns 2 and 3, examines the relation between the concept “new entrants from emerging countries” and strategic importance of IDM. Half of the firms have almost no competitors from China and three of these six firms — F5, F8, and F10 — also claim to have almost no competitors from other developing countries in their target developed markets. The remaining firms have either a few or many competitors from China or other developing countries. Nine out of twelve cases are literal replications which confirm hypothesis H1b. Cases F5 and F8 are theoretical replications which support hypothesis H1b. Case F10 can not be used to examine hypothesis H1b.

The second half of Table 14.4, columns 4 and 5, examines the relation between the concept “uncertainty of product supply” and strategic importance of IDM. Seven out of eleven firms⁵ set the priority of product supply to the target developed market to be lower than that of other markets. Four remaining firms set higher or equal priority of product supply for their customers in developed markets. The majority of the firms other than F7 have long intercontinental delivery distance between their production sites and the target sales market. F7 has production in the sales market and the customers in that market are supplied mainly from the local production site. Although the majority of the cases, except for cases F7 and F8 which can not be used to examine H1c, provide literal replications that confirm hypotheses H1c, case F5 disproves the hypotheses H1c. As described in Chapter 13.1 on page 169, by using “single case study” for testing sufficient conditions, a hypothesis can be rejected by one single case if the independent concept is present but the dependent concept is absent. Therefore, hypotheses H1c is false. The possible reason for case F5, explained by the respondent, is again the characteristics of their products that they can be shipped easily through air freight and therefore do not have high demands for logistics planning and operation.

⁴ F5, F10, and F11 could not provide information or complete information about their competitors in foreign markets. Accordingly there are altogether nine valid cases for examining this hypothesis.

⁵ F11 could not provide information about this aspect, so there are altogether eleven valid cases for examining this hypothesis.

Table 14.3: Service level requirement from customers in developed markets and service level of local competitors

firm code	requirement of customers from developed market compared to the domestic and other developing markets				service level of local competitors compared to the focal firm			
	delivery time	delivery reliability	delivery quality	delivery flexibility	delivery time	delivery reliability	delivery quality	delivery flexibility
F1	shorter	higher	equal	higher	shorter	higher	higher	equal
F2	shorter	higher	higher	equal	shorter	higher	equal	equal
F3	shorter	higher	higher	higher	equal	higher	equal	higher
F4	shorter	higher	equal	equal	shorter	equal	equal	equal
F5	equal	equal	equal	lower	–	–	–	–
F6	shorter	higher	equal	higher	shorter	higher	equal	equal
F7	shorter	higher	equal	higher	shorter	higher	higher	higher
F8	equal	higher	equal	equal	shorter	higher	equal	equal
F9	equal	higher	higher	equal	shorter	equal	equal	higher
F10	shorter	higher	equal	higher	–	–	–	–
F11	shorter	higher	higher	higher	shorter	–	–	–
F12	shorter	higher	higher	higher	shorter	higher	equal	higher

Table 14.4: New entrants from emerging countries and uncertainty of product supply

firm code	competitors from China and other emerging countries		uncertainty of product supply	
	competitors from China	competitors from other emerging countries	priority of product supply comparing to other markets	distance between production site and the target sales market
F1	a few	a few	equal	intercontinental
F2	many	a few	lower	intercontinental
F3	a few	a few	lower	intercontinental
F4	almost none	a few	lower	intercontinental
F5	almost none	almost none	lower	intercontinental
F6	a few	a few	lower	intercontinental
F7	almost none	a few	equal	intra-continental
F8	almost none	almost none	higher	intercontinental
F9	almost none	a few	higher	intercontinental
F10	almost none	almost none	lower	intercontinental
F11	a few	many	—	—
F12	a few	a few	lower	intercontinental

Concerning hypothesis H2, IDM has no great importance for F8 although its customers demand higher delivery reliability and its competitors' also have higher delivery reliability, and the distance between production site and its target sales market is long. This case supports the moderating function of the “duration of cooperation” concept. Therefore, hypothesis H2 is supported by this case — if a firm has short-term sales transactions with its customers, then IDM is of little importance for these customers. For firms having or expecting a long-term cooperation, the importance of IDM is influenced by other factors examined above. However, based on case F5, there might be other existing moderating concepts such as characteristics of products, which will be discussed in Chapter 17 on page 211.

Internal resources and efficiency of IDL

In the following two sections, cases F5 and F8 are not considered because IDM has no strategic importance in these two firms and their cases will be discussed in the last section — concerning the moderating function of the concept “strategic importance of IDM”. Case F11 is also excluded, because it has not had FDI in developed markets yet.

Table 14.5 deals with the impact of the process cost calculation on the efficiency of IDL, which is reflected in cost reduction. The concept of process cost calculation is not widely implemented by Chinese firms. Five out of nine firms do not calculate the process cost of IDL and two of the four remaining ones started the project of process cost calculation recently. Firm F12 started the project in 2009 and by the time of the interview, no following optimization measures

have been carried out yet to reduce the cost of IDL. However, the respondent claimed that optimization measures have been planned and cost reduction is expected. Only two firms, F1 and F7, do calculation of the process cost of their IDL for the target market and have also optimized the process of distribution logistics based on the result of the calculation. Hypothesis H3a is supported by these two cases.

Table 14.5: Calculation of process cost of IDL

firm code	calculation of process cost of IDL	optimization measures based on the calculation	cost reduction in IDL
F1	yes	yes	yes. Project cost is high, but there is no detailed information available.
F3	in process, project started in 2010	—	—
F7	yes	yes	yes
F12	yes, project started in 2009	no, but planned	expected

Table 14.6 examines the relation between the combination of local and domestic employees⁶ and the efficiency of IDL. Chinese employees with strong local background are counted as local employees. If there is no change in the proportion of local and domestic employees after entering the example market, then overall customers' satisfaction and focal firm's satisfaction with internal communication are used as dependent variables. If a firm changed the proportion from not balanced to roughly balanced, then the dependent variable is the improvement in satisfaction. However, the latter situation supports the examination of the hypothesis more directly. From Table 14.6, we can see that two out of nine firms — F4 and F9 — could not offer information about the percentage of local and domestic employees, four firms have unbalanced proportion, and three have roughly balanced proportion. These three cases, F1, F6, and F12, are literal replications which confirm hypothesis H3b. Cases F2, F3, and F7 are theoretical replications which support H3b. Cases F3 and F7 show that if a firm has mainly domestic employees in their foreign subsidiaries, then the external communication with customers can be problematic. Case F3 shows that if a firm has mainly local employees in their foreign subsidiaries, then the internal communication with headquarters or other subsidiaries can be problematic.

Table 14.7 examines the relation between having a cross-subsidiary and/or cross-functional logistics organizational unit and the efficiency of IDL. If the firm has such a central logistics organizational unit since its entry into this market, then overall customers' satisfaction is used as the dependent variable. If a firm set up such a central logistics organizational unit later, then dependent variable is improvement in customers' satisfaction (if any). However, the latter situation supports the examination of the hypothesis more directly. From Table 14.7, we can see that only two firms F4 and F10 have no central logistics organizational unit at all. The remaining seven firms claimed to have such a logistics organizational unit which coordinates the logistics processes and four of them have the unit also coordinate between different functions such as

⁶ The meaning of "local and domestic personnel" is explained in the end of Chapter 5.4.3 on page 60.

Table 14.6: Percentage of local and domestic employees in foreign subsidiaries

firm code	percentage of local and domestic employees	from when (t_0) is the percentage roughly balanced	overall customers' satisfaction	focal firm's satisfaction with internal communication	improvement at time point t_1 after t_0 of...	
					customers' satisfaction	focal firm's satisfaction with internal communication
F1	differ slightly	entering	satisfied	very satisfied	–	–
F2	mainly domestic employees	–	somewhat dissatisfied	satisfied	–	–
F3	mainly local employees	–	very satisfied	somewhat dissatisfied	–	–
F6	differ slightly	2003	very satisfied	very satisfied	yes	yes
F7	mainly domestic employees	–	somewhat dissatisfied	very satisfied	–	–
F10	mainly domestic employees	–	satisfied	satisfied	–	–
F12	almost equal	2001	very satisfied	very satisfied	yes	yes

sales and production. All these seven cases are literal replications that confirm hypothesis H3c. However, a theoretical replication is not available.

Table 14.8 shows the relation between standardization of the international distribution process and the efficiency of IDL. Standardization has not been implemented in many Chinese firms yet. Five out of nine firms have neither a standardized process in each department nor a standardized international distribution process, although respondents of Firms F7 and F12 mentioned that standardization was planned in the near future. In case F1, the firm has had a standardized process since the beginning of entering the example market. Their customers' satisfaction makes the case a literal replication for supporting hypothesis H3d. Firms F2, F3, and F10 have conducted standardization in the recent years. However, two cases show that there was a reduction in logistics cost, but no improvement in customers' satisfaction. The other case F2 shows the opposite situation and the respondent of Firm F2 even indicated an increase of logistics cost. Therefore these three cases do not support hypothesis H3d. Although case F7 can be seen as a theoretical replication, hypothesis H3d is false.

Table 14.9 examines the relation between the culture of continuous learning and the efficiency of IDL. Four out of nine firms claimed to have CIP and these firms also conduct optimization projects in IDL often or very often. In all of these four cases, the firms noted an improvement in customers' satisfaction and a reduction of logistics costs between their entry to the example markets and now. Therefore, these four cases are literal replications which provide strong support for hypothesis H3e. The rest of the five firms have no CIP and do not have frequent op-

Table 14.7: Cross-subsidiary and cross-functional logistics organizational unit

firm code	one organizational unit coordinates...		from when (t_0)	overall customers' satisfaction	at time point t_1 after t_0	
	logistics processes of all subsidiaries in one market	logistics, production and sales for the market			improvement of customers' satisfaction	reduction of logistics cost
F1	yes	yes	entering	satisfied	–	–
F2	yes	no	2005	somewhat dissatisfied	yes	yes
F3	yes	yes	2008	very satisfied	yes	yes
F4	no	no	–	satisfied	–	–
F6	yes	yes	2003	very satisfied	yes	yes
F7	yes	no	2004	somewhat dissatisfied	no information	yes
F9	yes	no	2009	satisfied	yes	no information
F10	no	no	–	satisfied	–	–
F12	yes	no	entering	very satisfied	–	–

Table 14.8: Standardization of the international distribution process

firm code	standardized process...		from when (t_0)	overall customers' satisfaction	at time point t_1 after t_0	
	for each department	for international distribution			improvement of customers' satisfaction	reduction of logistics cost
F1	yes	in process	entering	satisfied	–	–
F2	yes	no	2007	somewhat dissatisfied	yes	no
F3	yes	yes	2009	very satisfied	no	yes
F4	no	no	–	satisfied	–	–
F6	no	no	–	very satisfied	–	–
F7	no	no	–	somewhat dissatisfied	–	–
F9	no	no	–	satisfied	–	–
F10	partially	yes	2007	satisfied	no information	yes
F12	no	no	–	very satisfied	–	–

timization projects in IDL either. Three of these five firms had no reduction in logistics cost and one achieved no improvement in customers' satisfaction since their entry to the example markets until now. Therefore these four cases are theoretical replications that support hypotheses H3e.

Table 14.9: Culture of continuous learning

firm code	existence of CIP	frequency of optimization project in IDL	from entering the market until now	
			improvement of customers' satisfaction	reduction of logistics cost
F1	yes	very often	yes	yes
F2	no	sometimes	yes	yes
F3	yes	very often	yes	yes
F4	no	sometimes	yes	no
F6	yes	often	yes	yes
F7	yes	very often	yes	yes
F9	no	rarely	yes	no
F10	no	sometimes	no	yes
F12	no	sometimes	yes	no

External resources and efficiency of IDL

Table 14.10 deals with the impact of outsourcing value-added services on the efficiency of IDL. Based on the interviews, nine different activities relevant to logistics were identified: transport, customer clearance, warehousing, picking, repacking, dispatching, optimization projects, consulting, and other value-added services. Among them, transport, custom clearance, warehousing, and dispatching are considered to be basic logistics activities and the rest are value-added services.⁷ If the firm has been outsourcing value-added services since its entry into this market, then overall customers' satisfaction is used as the dependent variable. If the firm started outsourcing value-added services later, then the improvement in customers' satisfaction and the reduction of logistics cost are used as dependent variables. However, the latter situation supports the examination of the hypothesis more directly. From column 2 in Table 14.10, we can see that all interviewed firms have outsourced basic logistics activities. Three out of nine firms have only outsourced these basic activities and the remaining six firms have outsourced value-added services activities. Cases F1, F6, and F12 provide three literal replications which confirm hypothesis H4a. However, cases F2 and F3 contradict each other and can not support hypothesis H4a. Moreover, in case F7 although the firm outsourced a big range of logistics activities, including value-added services from the beginning of market entry, the overall customers' satisfaction is low, which disproves hypothesis H4a. Therefore, hypothesis H4a is false.

Table 14.11 examines the relation between the sourcing strategy and efficiency of IDL in terms of

⁷ This classification is based on the result of interviews in both theory-building and theory-testing research. Commonly outsourced activities are considered to be basic logistics activities.

Table 14.10: Activities outsourced to LSPs

(Activities ①–⑨ refer to: ① transport, ② custom clearance, ③ warehousing, ④ picking, ⑤ repacking, ⑥ dispatching, ⑦ optimization project, ⑧ consulting, ⑨ other value-added services. Among them, ①②③⑥ are considered basic logistics activities, ④⑤⑦⑧⑨ are considered value-added services.)

firm code	activities outsourced to LSPs	when value-added services was outsourced (t_0)	overall customers' satisfaction	at time point t_1 after t_0	
				improvement of customers' satisfaction	reduction of logistics cost
F1	①–⑧	entering	satisfied	–	–
F2	①–⑥	2006	somewhat dissatisfied	yes	no
F3	①–④ ⑥–⑧	2008	very satisfied	no	yes
F4	①–③ ⑥	–	satisfied	–	–
F6	①–⑨	2003	very satisfied	yes	yes
F7	①–⑧	entering	somewhat dissatisfied	–	–
F9	①–③ ⑥	–	satisfied	–	–
F10	①–③ ⑥	–	satisfied	–	–
F12	①–⑥ ⑧⑨	entering	very satisfied	–	–

the number of LSPs. The respondents were asked about the current number of LSPs and whether there was a change from multiple sourcing to single/double sourcing strategy or vice versa. If there was no change, then overall satisfaction with LSPs' service is used as the dependent variable. If there was a change, then the improvement of satisfaction after the change is used as the dependent variable. Five out of nine firms — F1, F3, F7, F10, and F12 — currently apply a single or double sourcing strategy, and three of these five firms have moved from multiple sourcing strategy to the current strategy. These five cases are all literal replications which provide strong support to hypothesis H4b. The remaining four firms apply a multiple sourcing strategy and there was no change after entering their example market. Case F2 is a theoretical replication that also confirms hypothesis H4b. Therefore, hypothesis H4b is true.

Table 14.12 examines the relation between the characteristics of LSPs and the efficiency of IDL in terms of size and specialization of the LSPs. From the second column, we can see that only one firm (F7) outsources logistics activities in specialized field to LSPs, so there are too few cases to test the hypotheses H4d. Firm F7 cooperates with two large LSPs who are specialized in this field, but the firm is not very satisfied with the cooperation. The case rejects hypothesis H4d, therefore H4d is false. Among the other eight firms, who do not demand services from LSPs in specialized fields, five of them use medium-sized LSPs and only three use large LSPs. If a firm switched from large LSPs to medium-sized LSPs or vice versa, then the improvement of satisfaction with LSPs's service and reduction of price are used as dependent variables. If there was no change in the size of the LSPs, then overall satisfaction with LSPs' service is used as the dependent variable. Three firms (F1, F6, and F12) switched from large LSPs to medium-sized

Table 14.11: Sourcing strategy for logistics operation in the target market

firm code	sourcing strategy (number of LSPs)	changed from multiple to single/double sourcing strategy or vice versa	overall satisfaction with LSPs' service	improvement of satisfaction if the firm changed its sourcing strategy
F1	double	yes, changed from multiple sourcing	satisfied	yes
F2	multiple	no	neither satisfied, nor dissatisfied	–
F3	single	no	very satisfied	–
F4	multiple	no	satisfied	–
F6	multiple	no	very satisfied	–
F7	double	yes, changed from multiple sourcing	somewhat dissatisfied	yes
F9	multiple	no	satisfied	–
F10	double	yes, changed from multiple sourcing	satisfied	yes
F12	double	no	satisfied	–

LSPs and all of them claimed that this move had a positive impact on LSPs' service and price. The remaining two firms (F4 and F10), who started with medium-sized LSPs in the example markets, are satisfied with their LSPs' service. These five cases are literal replications which confirm hypothesis H4c. Case F2 is a theoretical replication which also supports hypothesis H4c. Therefore, hypothesis H4c is true.

Table 14.13 examines the relation between integration of IT systems and efficiency of IDL. Three kinds of IT integration were covered in the interviews, including integration in order processing, inventory management, and tracking and tracing (t&t). If a firm implemented IT integration after entering, then the improvement of satisfaction is used as the dependent variable. However, the latter situation supports the examination of the hypothesis more directly. Four out of nine firms have no IT integration with their LSPs yet. Information is transferred through traditional means such as email or fax with documents or excel tables. Among these four cases, Case F2 makes a theoretical replication that supports hypothesis H4e. Five firms implemented IT integration with their LSPs after they entered example markets and all of them claimed to be more satisfied with the information flow afterwards. Thus these five cases are literal replications which confirm hypothesis H4e. Therefore, hypothesis H4e is true.

Table 14.14 examines the relation between intensive personal communication and efficiency of IDL. Intensity of personal communication is defined in four levels. From the lowest to the highest intensity, they are: communication through telephone, fax, and email when necessary, meetings in person when necessary, regular meetings in person, and staff working on-site with the LSP.⁸ Satisfaction with LSPs' service in the starting period is used as the dependent variable. Firms F3, F4, F7, and F9 had more intensive personal communication with their LSPs in the starting

⁸ This classification is based on the answers of the respondents.

Table 14.12: Size and specialty of the cooperating LSPs

firm code	demanded services in specialized field from LSPs	size of LSPs	changed from large to medium-sized LSPs or vice versa	overall satisfaction with LSPs' service	for firms which changed their sourcing strategy	
					improvement of satisfaction	reduction of price
F1	no	medium-sized	yes	satisfied	yes	yes
F2	no	large	no	neither satisfied, nor dissatisfied	–	–
F3	no	large	no	very satisfied	–	–
F4	no	medium-sized	no	satisfied	–	–
F6	no	medium-sized	yes	very satisfied	yes	yes
F7	yes	large	no	somewhat dissatisfied	–	–
F9	no	large	no	satisfied	–	–
F10	no	medium-sized	no	satisfied	–	–
F12	no	medium-sized	yes	satisfied	yes	yes

Table 14.13: Degree of IT integration between the focal firm and its LSPs

firm code	degree of IT integration	start of IT integration (t_0)	overall satisfaction with information flow	improvement of satisfaction at time point t_1 after t_0
F1	inventory management, t&t	2009	satisfied	yes
F2	no	–	somewhat dissatisfied	–
F3	t&t	2009	satisfied	yes
F4	no	–	satisfied	–
F6	inventory management, t&t	2004–2005	very satisfied	yes
F7	order processing, inventory management, t&t	2007	satisfied	yes
F9	no	–	satisfied	–
F10	t&t	2009	very satisfied	yes
F12	no	–	satisfied	–

period. Although three out of these four cases are literal replications that confirm hypothesis H4f, and Case F2 and F6 are theoretical replications which support it, Case F7 disproves it. Therefore, hypothesis H4f is false.

Table 14.14: Means of communication in the starting period
(Means ①–④ refer to: ① through telephone, fax, and email when necessary, ② meetings in person when necessary, ③ regular meetings in person, ④ staff work on-site with its LSP.)

firm code	means of communication in the starting period	satisfaction with LSPs' service in the starting period
F1	①②	satisfied
F2	①②	neither satisfied nor dissatisfied
F3	①②③④	very satisfied
F4	①②③	satisfied
F6	①②	somewhat dissatisfied
F7	①②③	somewhat dissatisfied
F9	①②③	satisfied
F10	①②	satisfied
F12	①②	satisfied

Table 14.15 examines the relation between application of performance indicators and the efficiency of IDL. Chinese firms have realized the importance of controlling performance through quantitative and qualitative indicators. Four out of nine firms have defined KPIs in SLA and applied an evaluation system for LSPs in recent years. In all these four cases, improvement of satisfaction with their LSPs was reported. These four literal replications confirm hypothesis H4g. Among the remaining five firms, two firms F2 and F3 were working on the application of performance indicators at the time when the interviews took place. Firm F2 is not satisfied with its LSPs' service, which makes this case a theoretical replication which supports hypothesis H4g. Although no improvement could be measured at that moment yet, it was expected. Therefore, hypothesis H4g is true.

“Strategic importance of IDM” as a moderating concept

As illustrated in Figure 12.2 on page 166, “strategic importance of IDM” is considered to be a moderating concept. The two firms (F5 and F8) who consider IDM having no strategic importance for their internationalization, are used to test the moderating function of “strategic importance of IDM”. According to the result of theory-building study described in Chapter 11.4 on page 163, hypotheses H3a, H4c, and H4f are assumed to be true and H4a, H4e, H4g are assumed to be false. However, hypotheses H4a and H4f were shown to be false in the previous section. So only H3a, H4c, H4e, and H4g will be tested in this section.

As presented in Table 14.3 on page 187 and Table 14.4 on page 188, in the case of Firm F5, requirement for logistics services of its customers from developed markets is not higher than

Table 14.15: Application of performance indicators

firm code	are KPIs in SLA defined	application of an evaluation system for LSPs	when (t_0) KPIs and/or evaluation system were first used	overall satisfaction with LSPs' service	improvement of satisfaciton
F1	yes	yes	2007	satisfied	yes
F2	in process	in process	–	neither satisfied, nor dissatisfied	(expected)
F3	in process	in process	–	very satisfied	(expected)
F4	no	no	–	satisfied	–
F6	yes	yes	2004	very satisfied	yes
F7	yes	yes	2006	somewhat dissatisfied	yes
F9	no	no	–	satisfied	–
F10	yes	yes	2006	satisfied	yes
F12	no	no	–	satisfied	–

that of its domestics customers or customers from developing countries. There are very few competitors from either the target market or from China or other developing countries. Due to these reasons, IDM has no strategic importance at the moment for Firm F5. As presented in Table 14.2 on page 185, IDM has no strategic importance at the moment for Firm F8 because they only have short-term sales transactions with their customers.

Firm F5 applied the process cost calculation of IDL in 2008 and optimized some processes based on the calculation. The respondent also claimed there was a cost reduction in logistics after the optimization measures. Firm F8 has not applied process cost calculation yet. As confirmed by Case F5, hypothesis H3a is also true when IDM has no strategic importance.

Both Firm F5 and F8 have no demand for services in a specialized field from LSPs and currently use medium-sized LSPs. Firm F5 switched from large to medium-sized LSPs and claimed to be more satisfied with the LSPs' service after the change. Firm F8 is satisfied with its LSPs' service in overall. Therefore hypothesis H4c is supported by these two cases.

Neither Firm F5 nor F8 have any IT integration with its LSPs yet. The respondents claimed it to be unnecessary to set up an IT integration for the current business. In Case F5, air freight is used for most of the transport. Moreover, the uncritical customers' requirements and the lack of local competitors mean that there is no pressure to increase the efficiency of IDL. In Case F8, business volume at the time of the interview was relatively low and there were no regular orders from customers. Firm F8 uses multiple LSPs and communicates in traditional ways when orders are placed by its customers. The same is with the performance control, both firms have not implemented performance indicators or an evaluation system for its LSPs. The respondents said that the cost of setting up such as system would be too high and so far the firm has no urgent need for increasing the efficiency of IDL. Although these two cases do not

reject hypotheses H4e and H4g directly, they tend to be false under the condition that IDM has no strategic importance. Therefore, H5 is supported by the cases.

14.2 Result

All the hypotheses were tested with the cases described in the last section. Some of the hypotheses were supported and some were rejected. The following hypotheses were confirmed:

h1a, h1b, h1d
h2
h3a, h3b, h3c, h3e
h4b, h4c, h4e, h4g
h5

Theory-testing research serves the purpose of evaluating the conceptual model that is developed through theory-building research. The result of hypothesis-testing reflects the validity of the propositions developed in Chapter 11. Therefore, the conceptual model illustrated in Figure 12.1 and Figure 12.2 on page 166 can be modified according to the testing results. Figure 14.1 shows the finalized model of efficient IDL systems for Chinese firms entering developed markets.

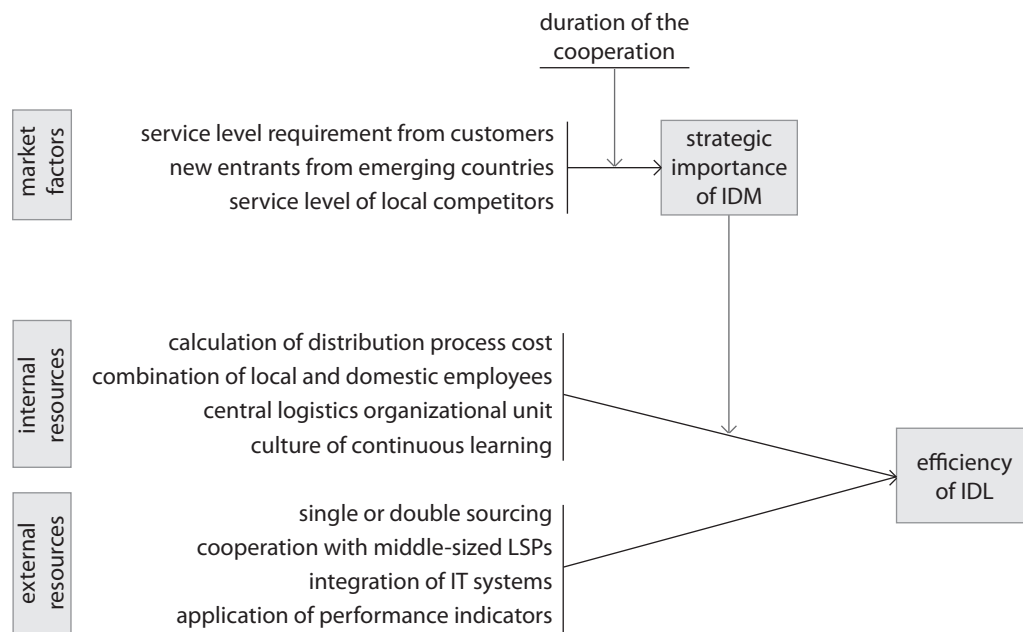


Figure 14.1: A model of efficient IDL systems for Chinese firms entering developed markets

Five propositions were not supported by the theory-testing research.

Among “market factors”, the sufficient condition proposition between uncertainty of product supply and importance of IDM (P1c) is not supported. The proposition is only rejected by one case out of eleven. A possible explanation could be the influence of the products’ characteristics, such as variety, complexity, volume, quantity etc. The relation of products’ characteristics and

the importance of IDM should be studied in further research. Although P1c is not valid as a sufficient condition proposition, there could be a probabilistic relation between the two concepts, that uncertainty of product supply is likely to give IDM strategic importance. However, a probabilistic relation needs to be tested in further research with more samples or, if possible, with a survey.

Among “internal resources”, the sufficient condition proposition between standardization of the distribution process and efficiency of IDL systems (P3d) is not supported. One explanation could be that Chinese firms are mostly inexperienced in standardization. Pushing standardization to an international scope requires investment of all kinds of resources.⁹ The scope of necessary standardization of logistics processes depends on the situation of each firm and also on the situation of the target market.¹⁰ The process of standardization may actually reduce the efficiency of IDL system in short term. Since there was no case in which a firm had conducted standardization long enough to test the proposition, this concept should be tested in the future with more suitable cases.

Among “external resources”, the sufficient condition proposition between expanding the scope of logistics outsourcing by getting value-added services from LSPs and efficiency of IDL systems (P4a) is not supported. One explanation for the lack of reduction in cost could be the increased transaction costs that are incurred through the outsourcing process. Transaction costs exist not only in the phases of diagnosis, conceptual design, and call for tender, but also in the phase of implementation and continuous controlling and adaptation.¹¹ Therefore, expanding the scope of logistics outsourcing does not necessarily bring cost reduction in short term, and can cause a cost increase instead. The service quality level does not always increase as expected either.

The sufficient condition proposition between cooperating with specialized LSPs (if specialized activities are to be outsourced) and efficiency of IDL systems (P4d) is not supported. Unfortunately, there is only one case that can be used to test this proposition and the firm did not change from non-specialized to specialized LSPs. Therefore in this case, the firm’s dissatisfaction with its LSPs could have other causes and the case does not make a clear rejection to the proposition. If no other case can be found, this case should be further investigated as a single case study through, for example, in-depth interview to find out the causes of dissatisfaction and whether using specialized LSPs contributes to the efficiency of its IDL systems.

The same case also rejects the sufficient condition proposition between intensive personal communication during the cooperation and efficiency of IDL systems (P4f), although it is supported by other four cases. It is therefore necessary to investigate this case or similar cases in future research. Although P4f is not valid as a sufficient condition proposition according to the current research, there could be a probabilistic relation between the two concepts, that intensive personal communication during the cooperation is likely to increase the efficiency of IDL systems. However, a probabilistic relation needs to be tested in further research with more samples or, if possible, with a survey.

⁹ Four kinds of resources were defined in Chapter 7.3 on page 99.

¹⁰ See [Straube & Pfohl \(2008\)](#), p. 89.

¹¹ See [Wintergerst & Welker \(2007\)](#), pp. 938–954.

Chapter 15

Contributions and managerial implications

This chapter will discuss the contribution of the whole study including the exploration of theory (Part II), the theory-building research (Part III), and the theory-testing research (Part IV). The first section will analyze the theoretical contributions and the second section will give some practical implications for Chinese firms and LSPs.

15.1 Theoretical contributions

Overall, four specific theoretical contributions emerge from the presented research.

First, the domain of this study addresses the research gap existing in management research on emerging economies. As described in Chapter 1.2 on page 3, there are four perspectives in such kind of management research. Among them, there is not enough research which addresses firms from emerging economies entering other emerging countries or entering developed markets.¹ This study is set in the context of Chinese manufacturing firms entering developed markets. Through comprehensive literature and practice research, the study provides an overall view of the development and characteristics of Chinese firms' internationalization in Part II. The focus is set on Chinese firms with outward FDI activities — an area not touched upon by most research. In Part III, interviews with several “national champions” — well-known Chinese firms who have entered developed market with FDI activities — and the analysis of the cases provide first-hand information about their IDM. The information contributes to the literature of internationalization of new MNEs.

Second, the study extends the theory of RBV in the field of internationalization by discovering the potential of internal and external resources that can enhance the efficiency of firms' IDL systems. As described in Chapter 7.1.1 on page 88, the concept of a **resource** plays an important role in theories of internationalization, for example in DUNNING's eclectic theory, in Uppsala

¹ See Wright *et al.* (2005), pp. 14–16; Filatotchev *et al.* (2007), p. 556.

School's model, or in MATHEWS' OLI* framework.² It is used mainly to explain the general motive, driver, and entry strategies of a firm's internationalization. Some researchers have applied the theory of RBV in the field of logistics and SCM in recent years.³ In this study, the theory of RBV is used specifically in the field of distribution management, which is the management of a set of more or less closely connected resources in a distribution network. The literature research and exploration of practice revealed potential resources that may enhance the efficiency of a firm's IDL systems. These potential resources are presented in Chapter 7.3 on page 99, Chapter 11.2 on page 151, and Chapter 11.3 on page 157. This study did not only focus on the resource perspective, but also included the **market** perspective, because the target markets of the focal firms of this study are developed markets, which are a very different environment from the studied firms' domestic markets or other developing markets. The combination of RBV and MBV has been discussed in numerous publications and applied in some research in the field of internationalization.⁴ When applied in the field of distribution logistics, the combination of RBV and MBV provides a more complete picture of IDM for a new MNE entering developed markets.

Third, the results of the study suggest important resources for increasing the efficiency of IDL systems. As described in the discussion of the research gap in Chapter 1.2 on page 3, distribution is often neglected by theorists in the research field of internationalization, in favor of research on more "glamorous" and strategic corporate activities.⁵ Available studies on the topic of international distribution usually focus on firms from North America or Europe entering other developed or developing markets, and mostly on export-oriented businesses.⁶ The present study set the focus on this research gap and developed a model of efficient IDL systems for new MNEs entering developed markets with FDI activities. The determinants, including internal and external resources, which have a positive impact on the efficiency of IDL systems, are presented in this model. Internal resources include calculating distribution process cost, combining local and domestic employees, having a central logistics organizational unit, and pushing the culture of continuous learning. Due to the lack of internal resources, new MNEs should extend their own resources by getting external resources through cooperating with external partners. In this research, LSPs are considered to be external partners. External resources include applying single or double sourcing for logistics services, cooperating with medium-sized LSPs, integrating IT systems, and applying performance indicators. However, through the analysis of market factors, the study has also found that IDM does not always have strategic importance. Moreover, the importance of IDM is a moderating factor for the relation between the resources and the efficiency of IDL systems.

Finally, although this study is set in the context of Chinese firms, the conceptual model of market-resource-performance in IDL can also be applied to firms from other emerging economies, who are entering developed markets and have similar constraints in resources. The model offers a good basis for further research of new MNEs' market development strategies.

² For details of these theories, see Chapter 4.2 on page 19.

³ See for example Gadde *et al.* (2002) and Jahre & Fabbe-Costes (2005).

⁴ See Zentes *et al.* (2004), p. 33 and the research of Bode (2009).

⁵ See Czinkota & Kotabe (2000), p. 3.

⁶ For detailed analysis, see Chapter 4.4 on page 38.

15.2 Managerial implications

A number of implications result from the study. The first subsection will discuss managerial implications for Chinese firms who have or plan to have FDI activities in developed markets. The second subsection will give some suggestions to LSPs who are cooperating or are going to work with Chinese firms.

15.2.1 Implications for Chinese firms

As described in Chapter 7.1.3 on page 93, in order to develop successful strategies, a firm's internal situation (strengths and weaknesses) and its external situation (opportunities and risks) need to be determined. RVB and MBV fit well with the SWOT analysis.⁷

The model developed in this study suggests that a firm should first analyze its **market** situation, which can be seen as an **OT (opportunities and threats) analysis**. The analysis of the market factors for the importance of IDM was based on the five forces competition model of PORTER, including competitive rivalry within the industry, threat of new entrants, threat of substitute products or services, bargaining power of customers, and bargaining power of suppliers.⁸

According to the model developed in this thesis, a firm first needs to assess the duration of the business with its customer, whether it is a middle-/long-term cooperation or merely short-term transactions. It is not only necessary to judge the current situation, but also to consider future plans with the customer, for example whether there is an opportunity for changing the short-term transactions into a long-term cooperation with the customer. Both existing and expected middle-/long-term cooperation between the focal firm and its customer are considered to be a prerequisite for IDM having strategic importance.

If this is the case, then the firm should check the service level requirements of its customer. As newcomers in developed markets, firms from emerging countries do not usually have stronger bargaining power than their customers and customers from developed markets usually have more demanding service level requirements than the standard in emerging countries. Therefore, the high service level demanded by the customers needs to be provided. A systematic comparison between the service level demanded by these customers and that demanded by domestic customers or the customers from other developing countries is a necessary step for finding the difference. KPIs for delivery time, delivery reliability, delivery flexibility, accuracy and condition of the delivery can be used to quantify service level requirements.⁹ If the required service level is higher, then the firm should consider its distribution management to be strategically important.

Threats can come from local competitors or competitors from other developed countries, not

⁷ For details, see Figure 7.3 on page 94.

⁸ See Porter (1979), p. 141, Figure 7.1 on page 93, and Figure 11.2 on page 148.

⁹ For some KPIs and the method of calculation, see for example Pfohl (2010), pp. 35–39.

only in terms of competitive products, but also processes. These competitors can often offer a higher service level than the newcomers due to, for example, shorter delivery distance, more efficient logistics systems, better understanding of customers' needs, more mature distribution network, etc. Usually it is not easy to acquire information of a competitors' service level directly. Indirect ways include publications, attending conferences and exhibitions, and market research through external consulting companies. If the service level of the competitors is higher than that of the focal firm, then distribution management for the target market has strategic importance.

Threats can also come from competitors from the same country or other emerging countries. These new entrants will increase the competition in the target market, because they often provide the same products and have similar advantages as the focal firm, such as price advantage or flexibility advantage. However, a more efficient distribution logistics system can differentiate the focal firm from these competitors. Therefore, if there are new entrants from emerging countries, then the firm should pay more attention to its distribution management.

The analysis of opportunities and threats reveals whether IDM has strategic importance. Based on the result, the firm should then analyze its **resources**, which can be seen as an **SW (strengths and weaknesses) analysis**. The analysis of the internal resource factors for efficient IDL systems was based on four kinds of resources categorized by [BARNEY & CLARK](#), including physical capital resources, financial capital resources, human capital resources, and organizational capital resources.¹⁰

If IDM has strategic importance in a firm's internationalization, four suggestions concerning internal resources were given based on the results of the study.

- First, in the international expansion, having a central organizational unit for logistics activities can bring advantages, for example through coordinating the subsidiaries worldwide to achieve a synergy effect, reduce cost, set up a knowledge base, and optimize processes globally and locally. However, the functions and responsibilities of the central organizational unit and logistics departments in BU, subsidiaries, or regions should be defined clearly according to each firm's situation.¹¹
- Second, defining the distribution process and calculating the process costs can help a firm optimize the more complex international distribution process. Calculation of logistics process costs has not yet been implemented in many Chinese firms. In the international distribution process, subprocesses such as transport, warehousing, ordering, and picking involve more steps; and more institutions are involved. Therefore conducting calculation of process costs can: i) push the firm to define the processes; ii) control the costs; iii) provide a basis for optimization of the processes. Calculation of process cost can be implemented or coordinated by a central organizational unit for logistics.
- Third, promoting a culture of continuous learning can help new MNEs adapt to the new markets. New MNEs should consider the process of internationalization as a process

¹⁰ See detailed description in Chapter 7.3 on page 99 and Figure 11.4 on page 154.

¹¹ For possibilities of organizational structure for logistics, see [Pfohl \(2004\)](#), pp. 314–318.

of learning and integration.¹² Logistics is more advanced in developed countries than emerging countries, such as China,¹³ so a new MNE needs to motivate its employees to learn and push the continuous process of improvement.

- Fourth, a combination of local and domestic employees for logistics functions in a foreign subsidiary is recommended. Logistics functions act as an interface to other functions in a firm, such as procurement, production, and sales. In an intercontinental business, logistics connects the functions in the domestic country on one side, with customers and LSPs in the foreign country on the other side. Therefore, a mixture of employees with different backgrounds and understanding of different markets is advantageous.

If IDM has strategic importance in a firm's internationalization, three suggestions were given concerning external resources, based on the results of the study.

- First, it is recommended to outsource logistics activities to one or very few medium-sized LSPs. Although there is danger that the firm can be too dependent on one LSP, there are several advantages. From the cost point of view, cooperation with more LSPs will increase transaction costs. Having higher business volume with one LSP gives the firm more bargaining power in price negotiations. From the service point of view, if a firm has a higher business volume, they are likely to be more important to the LSP. When cooperating with medium-sized LSPs, new MNEs tend to get more attention and better service than when cooperating with large LSPs. Moreover, having a good cooperation partner and being a valuable customer for the LSP can help the firm gain more knowledge.
- Second, new MNEs should set up integrated IT systems with their LSPs. Track & trace systems are commonly provided by LSPs. However, there is often double work for order processing and warehouse management, for example data of orders or inventory information need to be input manually and separately into two systems, which causes more work load and more mistakes. For new MNEs who do not have a high business volume in the beginning of the internationalization, it is difficult to invest in IT systems. It is more practical to find LSPs who provide different types of IT solutions to their customers, from simple, low-cost solutions for small accounts to sophisticated solutions for big accounts.
- Third, regular evaluation of LSPs through application of performance indicators is necessary to insure the efficiency of IDL systems. KPIs for evaluating the performance of logistics services are not yet commonly used in Chinese firms. Clearly defined KPIs can quantify the service level and cost, which is an effective control method to improve the efficiency of IDL systems. A new MNE can define the KPIs and set up an evaluation mechanism together with its LSP.

If IDM appears to have no strategic importance after the market analysis, the result of the study suggests that new MNEs should still apply the calculation of process cost and cooperate with

¹² See the theory of "technological accumulation" from CANTWELL & TOLENTINO and OLI* model of MATHEWS described at the end of Chapter 4.2.2.

¹³ The official term for "logistics" in Chinese was defined in 2001. See Anonymous (2001). Higher-level education in logistics also only started in the end of last century. See Anonymous (2011).

medium-sized LSPs. However, the study recommends not to invest in an integrated IT system and a complex evaluation system for controlling LSPs' performance. These measures may cause more costs than benefits.

15.2.2 Implications for LSPs

Some actions have been taking place in the German logistics sector in order to follow the trend of internationalization of Chinese firms. For example, Hellmann initiated a cooperation "China Desk" together with five other firms on March 25, 2008 in Düsseldorf. The purpose of the cooperation is on one hand to help European firms enter Asian markets and on the other hand to help Chinese firms invest in Europe.¹⁴ Their service was not limited to the field of logistics, but expanded to a much wider range, such as helping Chinese firms find right contacts for diverse functions, for example marketing, legal issues, design, etc. and to set up a network of contacts.

The result of this study shows that medium-sized LSPs have a chance of acquiring new MNEs as their customers. Judging from the growth of Korean automotive industry in Europe in the last fifteen years and the cooperation between Kia and BLG introduced in Chapter 10.5.3 on page 143, new MNEs from emerging economies can be attractive as potential customers for medium-sized LSPs in the near future. The reason why new MNEs prefer a cooperation with medium-sized LSPs has been explained in previous chapters. We can see that new MNEs not only expect conventional logistics services, but also want LSPs to help them grow, for example they expect LSPs to provide:

- more flexible and individual services to help them cope with the difficult starting phase,
- consultancy with knowledge in logistics management (for example design of distribution processes), controlling of logistics services, and market information (for example expected service level in the target market).
- solution for IT integration specifically for firms who just start with low business volume but with a potential of growing.

Intensive personal communication is important in the cooperation with new MNEs. People from two parties who work together in a cooperation would have dramatically different background of culture, education, market, level of knowledge in logistics and management, etc. Therefore, intensive personal communication is necessary to help cooperation partners gain trust between each other and avoid misunderstandings.

¹⁴ See [Hellmann \(2008\)](#).

Part V

Summary and outlook

Chapter 16

Summary of the study

Outward FDI from emerging economies has been growing rapidly in recent years and an increasing number of firms from emerging economies are becoming new global challengers — the so called new MNEs. However, these firms are facing formidable challenges in their internationalization due to their special characteristics and weaknesses. Although there is increasing research investigating this phenomenon, the overwhelming focus is still set on firms from developed countries, and the internationalization of new MNEs needs more investigation. This lack of research is particularly apparent in the field of distribution, which is a major function for the new MNEs who enter developed markets with a market-seeking motive. This study has presented an attempt to fill this research gap, and to provide answers to the central research question of this thesis:

how can new MNEs set up efficient international distribution logistics (IDL) systems when they enter developed markets?

The main question was divided into five sub-questions¹ which were all addressed in this thesis. Based on the sub-questions, a five-step research process was conducted:²

- Step 1 — theory exploration. A conceptual framework for Chinese firms' IDM was developed by using existing theories of internationalization and distribution management. The conceptual framework describes the relation between market factors and the strategic importance of IDM, and between resource factors and the efficiency of IDL systems.
- Step 2 — practice exploration. An in-depth comparative case study of five “national champions” was used to develop a more detailed model of efficient IDL systems for Chinese firms entering developed markets based on the conceptual framework of step 1.
- Steps 3 and 4 — theory-testing. A set of hypotheses was generated from the model obtained in step 2 and a serial single case study was used to test the validity of the hypotheses. Based on the insight gained from the interviews in step 2, focused structured interviews

¹ For details, see Chapter 1.3 on page 5.

² For details, see Chapter 2.2 on page 8.

could be prepared, allowing the study to include a larger number of Chinese MNEs. The result of this step was a finalized model of efficient IDL systems for Chinese firms entering developed markets.

- Step 5 — managerial implications. Based on the result of step 4, a number of managerial implications are discussed, both for Chinese firms who have entered developed markets or are planning their internationalization to such markets, and for LSPs who are planning to cooperate with such firms.

In order to make the study realizable, the focus was fixed on a specific domain — Chinese manufacturing firms investing in developed markets with outward FDI.³ However, the findings of the study should be at least partially applicable to firms from other developing countries investing in developed markets, since they share many of the same strengths and weaknesses, opportunities and threats. The results of the study show that:⁴

- IDM has no strategic importance for manufacturers who expect short-term sales transactions with their customers.
- For manufacturers who have or expect long-term cooperation with their customers, IDM has strategic importance if a high service level is required by customers, or if there are potential new entrants from emerging countries, or if local competitors have a high logistics service level.
- The following internal resources have a positive impact on the efficiency of IDL systems: calculation of the distribution process cost, a good combination of local and domestic employees in overseas subsidiaries, a central logistics organizational unit, and a culture of continuous learning, self-negation, and modification of the current distribution process.
- Single or double sourcing (concentration on cooperating with one or two LSPs) for the logistics activities in the sales market (not including the inter-continental transport) lead to higher efficiency of IDL systems than multiple sourcing. If basic logistics activities and value-added services without specialized activities are to be outsourced to LSPs, cooperating with medium-sized LSPs leads to higher efficiency of IDL systems than cooperating with large LSPs. Moreover, an integration of IT systems between a manufacturer and its LSPs, and applying performance indicators both have a positive impact on the efficiency of IDL systems.

The result of the study answered the sub-question 3 “which market factors influence the importance of IDM” and sub-question 4 “which resource factors, including internal and external resources, have a positive impact on the efficiency of IDL systems”. Based on the result, some managerial implications were provided, not only for Chinese firms who are operating in developed markets or plan to enter these markets, but also for medium-sized LSPs, for whom the new MNEs are potential customers in near future.⁵ These managerial implications answered the

³ For details on choosing the domain in different research steps, see Chapter 2.1 on page 7.

⁴ For details, see Chapter 11 on page 145 and Chapter 14 on page 182.

⁵ For details, see Chapter 15.2 on page 202.

sub-question 5 “which practical suggestions can be made for setting up efficient IDL systems or to improve the efficiency of their IDL systems”.

In addition to the practical contribution, this study has also provided a number of theoretical contributions:⁶

- The study provides an overall view of the development and characteristics of Chinese firms’ internationalization and first-hand information about their IDM. The information contributes to the literature of internalization of new MNEs, which is a topic that has not been sufficiently covered so far. This part of the study also answered the sub-question 2 “what do Chinese firms’ international distribution processes look like”.
- The study extends the theory of RBV in the field of internationalization by discovering the potential of internal and external resources that can enhance the efficiency of firms’ IDL systems. In addition to the resource perspective, this study also includes the market perspective and provides a more complete picture of IDM for a new MNE entering developed markets. This part of the study also answered the sub-question 1 “what are the market and resource situations of Chinese firms in their internationalization and what is their impact on the distribution management of these firms when they invest in developed markets.”
- The study provides a model of efficient IDL systems for new MNEs entering developed markets with FDI activities, and suggests important resources for increasing the efficiency of IDL systems. Since distribution has often been neglected by theorists in the research field of internalization, this is another important addition to existing literature.
- Although this study examines Chinese firms, the conceptual model of market-resource-performance in IDL can also be applied to firms from other emerging economies. The model offers a good basis for further research of new MNEs’ market development strategies.

⁶ For details, see Chapter 15.1 on page 200.

Chapter 17

Limitations and future research

The study has several limitations which also provide new directions for future research.

First, the research domain is limited to Chinese manufacturing firms entering the European (especially German) and North American markets. In order to generalize the finding of this study and/or to find further factors which influence the efficiency of IDL systems, the domain should be enlarged in future research. According to BCG's survey of new global challengers from emerging market,¹ although one third of the listed 100 firms are from China, there are also many new MNEs from India, Brazil, Mexico, and Russia. Expanding the domain to firms from these countries will help to not only test the model developed in this study, but also find new concepts. Moreover, a comparison between new MNEs from different emerging economies to find similarities and differences may provide interesting findings. The target developed markets can be extended to also include markets such as Japan and Australia.

Second, the explanatory theory for analyzing independent concepts in this study is limited to the theories of RBV and MBV. There are four theories that have been considered to be the leading theories when investigating emerging economies: transaction cost theory, agency theory, RBV (including capabilities, knowledge, and learning perspectives), and institutional theory.² Future research can try other theories as explanatory theories for investigating this research topic. Different explanatory theories offer different approaches to analyzing the problem, so new concepts which influence the efficiency of IDL systems might be found.

Third, the number of instances in theory-testing research is limited. Altogether, twelve firms provided valid cases and one of them is in the planning phase for FDI in developed market. Testing the propositions on a bigger number of instances can provide stronger support for sufficient condition propositions. The propositions which were not confirmed to provide sufficient conditions, such as P1c, P3d, P4f, should be examined using a larger number of instances to see whether there are probabilistic relations. The difficulty for such a survey is finding enough

¹ For details, see Figure 4.1 on page 19.

² See Wright *et al.* (2005), p. 2. These theories were identified by Hoskisson *et al.* (2000) in the context of emerging economies in general, by Peng (2001) in the context of China, and by Meyer & Peng (2004) in the context of Central and Eastern Europe.

qualified firms, because the population in this domain is not large, therefore a pre-study for finding candidate instances is necessary and time-consuming. An alternative approach could be a longitudinal case study with a few representative firms. One important feature in a firm's internationalization is the learning effect. Learning is a particularly important goal for new MNEs undergoing internationalization to developed markets. Investigating these firms at only one time point can not show the learning effect, therefore a longitudinal study with investigation of the firms at different time point is necessary.

Fourth, perceptual measures are used to describe market factors, resources factors, importance of IDM, and efficiency of IDL systems. Although, as explained in Chapter 13.3.1 on page 173, it is appropriate to use perceptual measures in this case study research, multiple performance measures including quantitative measures should be employed in future research. Quantitative measures are especially important for a longitudinal study. For example, the increase of the logistics service level can be quantified by the measurement of delivery time, ratio of delivering wrong or broken goods to total delivery, etc.; or the reduction of logistics costs can be quantified by the ratio of logistics cost to turnover.

Fifth, the research field of this study is limited to distribution logistics systems, as one important facet of international distribution management. The commercial system of distribution management, which includes setting up, managing, and control of distribution channels is not discussed. Apart from cooperation with LSPs, no other channel members are intensively discussed in the study. In order to provide new MNEs with complete guidance in international distribution management, commercial system of distribution management need to be investigated in further research.

Finally, the field of research can be expanded to include other functions in internationalization. As described in Chapter 1.2 on page 3, the majority of the research on the internationalization of new MNEs has focused on decision process of internationalization, such as motives of internationalization, choice of the target market, entry mode etc.³ Very few studies have actually studied market development strategies once a firm has entered a developed market. From the failed cases of outward FDI,⁴ we can see that some new MNEs are not prepared to run the business in a developed market, once they have entered. Therefore, other functions besides distribution management, such as marketing and sales, organizational management, human resource management, tax and legal issues, etc. should be studied in the future as well.

Internationalization of firms from emerging economies, especially towards developed economies, is a significant topic which has received little attention to date. The presented study helps to establish a foundation for further investigation of this phenomenon in the field of distribution management. I hope that this research will lead to not only further examination of this issue, which is of both theoretical and empirical importance, but also more research about new MNEs entering developed markets.

³ Examples of the studies about these topic can be found in the description in Chapter 1.2 on page 3.

⁴ An example case of TCL as given in Chapter 6.3.2 on page 79.

Appendices

Appendix A

Abbreviations

A.1 Abbreviations in the main body

3PL	third party logistics
4PL	fourth party logistics
BIPV	building integrated photovoltaics
BU	business unit
CCER	China Center for Economic Research
CIP	continuous improvement process
CKD	complete knock down
DC	distribution center
DRP	distribution requirements planning
EDGE	economic development growth & equity
EDI	electronic data interchange
ERP	enterprise resource planning
EU	European Union
FDI	foreign direct investment
FIAS	Foreign Investment Advisory Service
GDP	gross domestic product
IDM	international distribution management
IFC	International Finance Corporation
IPD	integrated product design
IPO	initial public offering
ISC	integrated supply chain
IT	information technology
JIT	just in time
JV	joint venture

KPI	key performance indicator
M&A	mergers and acquisitions
MBV	Market-Based View
MIGA	Multilateral Investment Guarantee Agency
MNC	multinational corporation
MNE	multinational enterprises
MOFTEC	Ministry of Foreign Trade and Economic Cooperation
NA	North America
NDRC	National Development and Reform Commission
ODM	original design manufacturer
OEM	original equipment manufacturer
PC	personal computer
POE	privately-owned enterprise
PPS	production planning and control system
R&D	research and development
RBV	Resource-Based View
SCE	state-controlled enterprise
SCM	supply chain management
SETC	State Economic and Trade Commission
SEZ	special economic zone
SLA	service level agreement
SME	small and medium-sized enterprise
SOE	state-owned enterprise
t&t	tracking and tracing
TNC	transnational corporation
TNI	transnationality index (of UNCTAD)
TVE	Township and village enterprise
WEEE	waste electrical and electronic equipment
WMS	warehouse management system

A.2 Abbreviations in citations and bibliography

BCG	The Boston Consulting Group
BFuP	Betriebswirtschaftliche Forschung und Praxis
BME	Bundesverband Materialwirtschaft, Einkauf und Logistik e.V.
CIA	Central Intelligence Agency
CJWB	Columbia Journal of World Business
CSCMP	Council of Supply Chain Management Professionals
DBW	Die Betriebswirtschaft
DCW	Deutsch-chinesische Wirtschaftsvereinigung e.V.
DRC	Development Research Center of the State Council
ELA	European Logistics Association
GSCM	Chair of Global Supply Chain Management, Tongji University
HGB	Handelsgesetzbuch (German commercial code)
HWF	Hamburgische Gesellschaft für Wirtschaftsförderung mbH
ICC	International Chamber of Commerce
IMF	International Monetary Fund
INSM	Initiative Neue Soziale Marktwirtschaft
MOFCOM	Ministry of Commerce of People's Republic of China
MSCI	Morgan Stanley Capital International
NBS	National Bureau of Statistics of People's Republic of China
NSF	National Science Foundation
OECD	Organisation for Economic Co-operation and Development
SAFE	State Administration of Foreign Exchange
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
WTO	World Trade Organization
ZfbF	Zeitschrift für betriebswirtschaftliche Forschung

Appendix B

Interview questions

B.1 Interview questions in theory-building research

B.1.1 Interview questions for Chinese firms

International distribution process:

- Where is the production? Where is the target market?
- How is the goods flow from the production site to the point of sales organized?
- Who are the involved players and which tasks are they responsible for?
- Who are your direct customers? Who are the end customers?
- Which tasks are involved in the international distribution?
- Please describe your logistics subsystems, including order process with customers and LSPs, intercontinental and inland transport, structure of warehousing, inventory management.
- What is the information flow like?
- What is the cash flow like?

Market analysis:

- What is the market situation?
- What is your main product?
- What is the duration of the cooperation with your customers?
- What are your customers' requirements in terms of logistics service level, which level do you provide, how satisfied are they, and what are their complaints?
- Who are your competitors in the target market and what are their advantages and disadvantages compared to you?
- Do you follow the lean approach, e.g. example build to order?

- Does your target market have a priority compared to the domestic market or other markets?

Internal management:

- Which market entry and development strategy is applied, e.g. M&A, Greenfield, sales office?
- What is the goal of distribution and is the goal being achieved?
- What is the organizational structure?
- What is the job division between central and other functions?
- What is the internal process for international distribution?
- Which level of management is responsible for distribution?
- Are there any human resource problems?
- Do you have a controlling method for distribution logistics, e.g. control of process costs?

Cooperation with LSPs:

- Which tasks are outsourced to LSP and what is the strategic importance of these tasks?
- How many LSPs do you have? Which tasks are assigned to whom? Why is it arranged this way?
- What are the main criteria for selecting LSPs? Is size a criterion? Why?
- What is the level of integration between you and your LSPs, for example IT integration?
- Do you have long-term cooperation with your LSPs? How long is the contract?
- Do you have a Service Level Agreement? Do you use KPIs to control service quality?
- Did cultural difference cause problems? Is language a problem?
- Is there personal trust or does everything depend on the contract?
- In overall terms, is the cooperation with your LSPs successful?

Summary questions:

- In overall terms, what are the biggest problems?
- What is the most valuable experience you have gathered in the internationalization?
- Do you see distribution as your competitive advantage?

B.1.2 Interview questions for LSPs

International distribution process:

- Who is your customer and in which sector?
- Please describe the logistics process that you are involved in for your customer.

- Which services do you provide to your customer, e.g. order processing from your customer's customer, international and inland transport, warehousing, other value-added services?
- What is the service level requirement of your customer's customer? How does it compare to the requirements of other firms in this sector?
- Please describe special considerations required for this sector in terms distribution logistics?

Cooperation with Chinese firms or firms from emerging countries:

- Why were you selected by your customer? Do you have a long-term cooperation?
- What is the IT integration between you and your customer like?
- Do you provide customized services or standard solutions to your customer?
- On which organizational level do contact and communication with your customer take place?
- Do you have SLA with your customer? Which KPIs are defined? Is there an evaluation system for your service?
- Did cultural and language differences cause problems in the cooperation?
- Is personal contact very important for setting up trust in the cooperations?

Summary questions:

- In overall terms, is the cooperation successful? What are the major problems?
- What are the differences between your cooperation with Chinese firms and European firms?
- What suggestions for distribution management do you have for Chinese firms who are entering European market?
- Are Chinese firms important potential customers for you in the near future?

B.2 Interview questions in theory-testing research

General questions

1. What is your position?
2. When did your firm enter the foreign market?
3. Which developed markets has your firm entered?
4. Which market will be used as the example market for this interview?
5. When did your firm enter this market?
6. Which value-added activities are involved in this market?
☐ production ☐ sales ☐ distribution ☐ R&D ☐ others:

7. What is the expected duration of the sales transaction with your customer?

☐ >3 years ☐ 1–3 years ☐ short-term sales transactions

Dependent concepts — strategic importance of IDM

1. Which level within your organizational hierarchy is responsible for international logistics?

☐ top management or board ☐ business field ☐ departmental

2. From which phase of internationalization is logistics involved?

☐ conception ☐ planning ☐ implementation

3. Are human resources invested in projects of logistics optimization?

☐ staff specialized for projects ☐ staff for day-to-day business participate in projects ☐ no projects so far

Dependent concepts — efficiency of IDL systems (partially)

1. In overall terms, how satisfied are your customers with your logistics services?

(in terms of delivery time, reliability, quality, and flexibility)¹

☐ very satisfied ☐ satisfied ☐ neither satisfied nor dissatisfied
☐ somewhat dissatisfied ☐ very dissatisfied

2. How satisfied are your firm with the internal communication between the headquarter and the foreign subsidiaries?

☐ very satisfied ☐ satisfied ☐ neither satisfied nor dissatisfied
☐ somewhat dissatisfied ☐ very dissatisfied

3. In overall terms, how satisfied are you with the service of your LSPs?

☐ very satisfied ☐ satisfied ☐ neither satisfied nor dissatisfied
☐ somewhat dissatisfied ☐ very dissatisfied

4. In overall terms, how satisfied are you with the information flow between your firm and the LSPs?

(in terms of error rate, proportion of manual work or double booking in two systems, and proportion of real-time information exchange)²

☐ very satisfied ☐ satisfied ☐ neither satisfied nor dissatisfied
☐ somewhat dissatisfied ☐ very dissatisfied

Independent concepts — market

1. Please compare the requirements of customers from your example market to those of the domestic market and other developing markets.

¹ Questions in the interview concerning “logistics services” are all evaluated according to these aspects.

² Questions in the interview concerning “information flow” are all evaluated according to these aspects.

- demanded delivery time: ☐ shorter ☐ equal ☐ longer
 - demanded reliability: ☐ higher ☐ equal ☐ lower
 - demanded delivery quality: ☐ higher ☐ equal ☐ lower
 - demanded delivery flexibility: ☐ higher ☐ equal ☐ lower
2. Are there competitors or potential competitors from China or other emerging countries?
- competitors from China: ☐ many ☐ few ☐ almost none
 - competitors from other emerging countries: ☐ many ☐ few ☐ almost none
3. What is the priority of production supply for your example market compared to other markets?
- ☐ lower ☐ equal ☐ higher
4. What is the distance between the production site and the target sales market?
- ☐ regional / short ☐ intra-continental / moderate ☐ intercontinental / long
5. Please compare the service level of local competitors to that of your firm.
- demanded delivery time: ☐ shorter ☐ equal ☐ longer
 - demanded reliability: ☐ higher ☐ equal ☐ lower
 - demanded delivery quality: ☐ higher ☐ equal ☐ lower
 - demanded delivery flexibility: ☐ higher ☐ equal ☐ lower

Independent concepts — internal resources

- 1.1 Have you applied the calculation of process costs of IDL in your firm?
- ☐ yes ☐ in process ☐ no
- 1.2 If the answer to question 1.1 is “yes”, have you taken any optimization measures based on the calculation?
- ☐ yes ☐ no
- 1.3 If the answer to question 1.2 is “yes”, was there a cost reduction in IDL after the optimization? (in terms of the percentage of transport, warehousing, inventory capital, and administration cost to the sales of the market in a certain period of time)³
- ☐ yes ☐ no
- 2.1 What are the percentages of local and domestic employees in your foreign subsidiaries?
- ☐ mainly domestic employees ☐ more domestic employees than local ☐ almost equal ☐ more local employees than domestic ☐ mainly local employees

³ Questions in the interview concerning “cost reduction” are all evaluated according to these aspects.

2.2 If the percentages are almost equal or only differ slightly, when did it reach this roughly balanced status?

2.3 Was there an improvement in your customers' satisfaction with your logistics services after this time point?

☐ yes ☐ no

2.4 Was there an improvement in your firm's satisfaction with the internal communication between the headquarters and foreign subsidiaries after this time point?

☐ yes ☐ no

3.1 Does your firm have one organizational unit that coordinates logistics processes of all subsidiaries in one market?

☐ yes ☐ no

3.2 Does your firm have one organizational unit that coordinates logistics, production, and sales functions for the example market?

☐ yes ☐ no

3.3 If the answer to either question 3.1 or 3.2 is "yes", when was this organizational unit established?

3.4 Was there an improvement in your customers' satisfaction with your logistics services after this time point?

☐ yes ☐ no

3.5 Was there a reduction of logistics cost after this time point?

☐ yes ☐ no

4.1 Does your firm have a standardized process for each department (function)?

☐ yes ☐ no ☐ partially

4.2 Does your firm have a standardized process for international distribution?

☐ yes ☐ no ☐ partially

4.3 If the answer to either question 4.1 or 4.2 is "yes" or "partially", when did your firm set up the standardized processes?

4.4 Was there an improvement in your customers' satisfaction with your logistics services after this time point?

☐ yes ☐ no

4.5 Was there reduction of logistics cost after this time point?

☐ yes ☐ no

5.1 Does your firm have CIP?

☐ yes ☐ no

5.2 How often do you have optimization projects in IDL?

☐ very often ☐ often ☐ sometimes ☐ rarely ☐ never

5.3 Was there an improvement in your customers' satisfaction with your logistics services between entering the market and now?

☐ yes ☐ no

5.4 Was there a reduction of logistics cost between entering the market and now?

☐ yes ☐ no

Independent concepts — external resources

1.1 Which of the following activities has your firm outsourced to LSPs?

☐ ① transport ☐ ② custom clearance ☐ ③ warehousing ☐ ④ picking ☐ ⑤ repacking
☐ ⑥ dispatching ☐ ⑦ optimization project ☐ ⑧ consulting ☐ ⑨ other value-added services

1.2 If your firm has outsourced activities ④⑤⑦⑧⑨, when were they outsourced?

1.3 Was there an improvement in your customers' satisfaction with your logistics services after this time point?

☐ yes ☐ no

1.4 Was there a reduction of logistics cost after this time point?

☐ yes ☐ no

2.1 How many LSPs does your firm have for the example market?

☐ single ☐ double ☐ multiple

2.2 Did you change from multiple to single/double sourcing or vice-versa?

☐ yes ☐ no

2.3 If the answer to question 2.2 is “yes”, was there an improvement in your satisfaction with the service of your LSPs after the change took place?

☐ yes ☐ no

3.1 Does your firm demand services in specialized field from LSPs?

☐ yes ☐ no

3.2 What is the size of your LSP(s)?

☐ large ☐ medium-sized ☐ small

3.3 Did you change from large to medium-sized LSPs or vice-versa?

☐ yes ☐ no

3.4 If the answer to question 3.3 is “yes”, was there an improvement in your satisfaction with the service of your LSPs after the change took place?

☐ yes ☐ no

3.5 If yes, was there a reduction of price after the change took place?

☐ yes ☐ no

4.1 Does your firm have IT integration in ...with your LSPs?

☐ yes, in ☐ t&t ☐ inventory management ☐ order processing

☐ no

4.2 If the answer to question 4.1 is “yes”, when was the IT integration set up?

4.3 Was there an improvement in your satisfaction with the information flow between your firm and the LSPs after this time point?

☐ yes ☐ no

5.1 Which of the following of means of communication did you use in the starting period to communicate with your LSPs?

☐ ① through telephone, fax, and email when necessary

☐ ② meetings in person when necessary

☐ ③ regular meetings in person

☐ ④ staff work on-site with its LSP

5.2 How satisfied were you with your LSPs’ service during the starting period?

☐ very satisfied ☐ satisfied ☐ neither satisfied, nor dissatisfied

☐ somewhat dissatisfied ☐ very dissatisfied

6.1 Does your firm have SLA with defined KPIs with your LSPs?

☐ yes ☐ no

6.2 Does your firm have an evaluation system for LSPs?

☐ yes ☐ no

6.3 If the answer to either question 6.1 or 6.2 is “yes”, when were KPIs or evaluation system applied?

6.4 If the answer to question 2.2 is “yes”, was there an improvement in your satisfaction with the service of your LSPs after the change took place?

☐ yes ☐ no

Appendix C

List of firms mentioned in the thesis

name used in thesis	full name	origin	name in Chinese	main products
Agere Systems	Agere Systems, Inc.	USA	-	electronics
Alcatel	Alcatel-Lucent Corporation	France	-	telecommunications
Altera	Altera Corporation	USA	-	electronics
Angang	Angang Steel Company Ltd.	China	鞍钢股份有限公司	steel
Arcelor-Mittal	ArcelorMittal S.A.	Luxembourg		steel
Baosteel	Baosteel Group Corporation	China	宝钢集团有限公司	steel
Bird	Ningbo Bird Co., Ltd.	China	宁波波导股份有限公司	electronics
BLG	BLG Logistics Group AG & Co. KG	Germany	-	logistics
BMW	Bayerische Motoren Werke AG	Germany	-	automotive
Bosideng	Bosideng International Holdings Ltd.	China	波司登国际控股有限公司	apparel
Brilliance Auto	Shenyang Brilliance Jinbei Automobile Co., Ltd.	China	华晨汽车集团控股有限公司	automotive
CCCC	China Communications Construction Company Ltd.	China	中国交通建设股份有限公司	construction
Changhong	Changhong Electric Co., Ltd.	China	长虹电子集团	electronics
Chery	Chery, Inc.	China	奇瑞汽车股份有限公司	automotive

name used in thesis	full name	origin	name in Chinese	main products
China Minmetals	China Minmetals Corporation	China	中国五矿集团公司	metals and metal products
Cisco	Cisco Systems, Inc.	USA	-	electronics
CITIC	CITIC Group	China	中国中信集团公司	diversified
CNOOC	China National Offshore Oil Corporation	China	中国海洋石油总公司	petroleum and natural gas
CNPC	China National Petroleum Corporation	China	中国石油天然气集团公司	petroleum and natural gas
Cognigine	Cognigine Corporation	USA	-	telecommunications
Cosco	COSCO Group	China	中国远洋运输集团	transport and storage
CSCEC	China State Construction Engineering Corporation	China	中国建筑工程总公司	construction
CVRD	Companha Vale do Rio Doce	Brazil	-	natural resource
Daewoo	Daewoo Group	Korea	-	automotive
DHL	DHL International GmbH	Germany	-	logistics
EP	ElectronicPartner GmbH	Germany	-	retailer
EVOC	EVOC Intelligent Technology Co.,Ltd.	China	研祥智能股份有限公司	computer
FAW	FAW Group Corporation	China	中国第一汽车集团公司	automotive
First Solar	First Solar, Inc.	USA	-	new energy
Fraport	Fraport AG	Germany	-	logistics
Galanz	Guangdong Galanz Group Co., .Ltd.	China	广东格兰仕集团有限公司	household appliance
Gazprom	Open Joint Stock Company Gazprom	Russia	-	petroleum and natural gas
Geely	Geely Holding Group	China	吉利控股集团	automotive
Greek OTE	OTE S.A.	Greece	-	telecommunications
Guangsteel	Guangzhou Iron & Steel Enterprises Group	China	广州钢铁企业集团	steel

name used in thesis	full name	origin	name in Chinese	main products
Haier	Haier Group	China	海尔集团	household appliance
Hamersley Iron Pty. Ltd.	Hamersley Iron Pty. Ltd.	Australia	-	iron ore
Hellmann	Hellmann Worldwide Logistics GmbH & Co. KG	Germany	-	logistics
Hisense	Hisense Group Co., Ltd.	China	海信集团有限公司	household appliance
Huawei	Huawei Technologies Co., Ltd.	China	华为技术有限公司	telecommunications
Hyundai	Hyundai Group	Korea	-	automotive
IBM	IBM Corporation	USA	-	computer
Infineon	Infineon Technologies AG	Germany	-	computer
Intel	Intel Corporation	USA	-	computer
Kia	Kia Motors Corporation	Korea	-	automotive
Konka	Konka Group Co., Ltd.	China	康佳集团	household appliance
KSL-Kuttler	KSL-Kuttler Automation Systems GmbH	Germany	-	machinery
Lenovo	Lenovo Group	China	联想集团	computer and related businesses
LG	LG Corporation	Korea	-	household appliance
LightPointe Communications	LightPointe Communications, Inc.	USA	-	telecommunications
Little Swan	Little Swan Co., Ltd.	China	无锡小天鹅股份有限公司	household appliance
Malacalza Group	Malacalza Group	Italy	-	iron and steel
MAN	MAN SE	Germany	-	automotive
Media Markt	Media Markt Singen GmbH	Germany	-	retailer
Microsoft	Microsoft Corporation	USA	-	software

name used in thesis	full name	origin	name in Chinese	main products
Midea	Midea Group	China	美的集团	household appliance
Mosolf	Horst Mosolf GmbH & Co. KG	Germany	-	logistics
Motorola	Motorola, Inc.	USA	-	telecommunications
MSK Corporation	MSK Corporation	Japan	-	new energy
Ningbo Baoxin Stainless Steel	Ningbo Baoxin Stainless Steel Corporation	China	宁波宝新不锈钢有限公司	steel
Nippon	Nippon Steel Corporation	Japan	-	steel
Nuctech	Nuctech Co., Ltd.	China	威视股份有限公司	security scanner
O2	Telefónica UK Ltd.	UK	-	telecommunications
ONGC	Oil and Natural Gas Corporation	India	-	petroleum and natural gas
Opti Might	OptiMight Communications, Inc.	USA	-	telecommunications
Oracle	Oracle Corporation	USA	-	software
Panalpina	Panalpina Group	Switzerland	-	logistics
Q-Cells	Q-Cells SE	Germany	-	new energy
Qualcomm	Qualcomm, Inc.	USA	-	telecommunications
Rhenus	Rhenus AG & Co. KG	Germany	-	logistics
Royal KPN N.V.	Royal KPN N.V.	Netherlands	-	telecommunications
SAIC	Shanghai Automotive Industry Corporation (Group)	China	上海汽车工业 (集团) 总公司	automotive
Samsung	Samsung Group	Korea	-	household appliance
Saturn	Saturn Electro-Handelsgesellschaft mbH	Germany	-	retailer
Schenker	DB Schenker	Germany	-	logistics
Shanghai Meishan Group	Shanghai Meishan Group Corporation	China	上海梅山 (集团) 公司	

name used in thesis	full name	origin	name in Chinese	main products
Shanghai Metallurgical Holding Group	Shanghai Metallurgical Holding Group Corporation	China	上海冶金控股(集团)公司	steel
Shaosteel	Shaosteel Group Corporation	China	广东省韶钢集团有限公司	steel
Sharp	Sharp Corporation	Japan	-	new energy
Shougang Group	Shougang Group	China	首钢集团	steel
Siemens	Siemens AG	Germany	-	electronics
Sinochem	Sinochem Group	China	中国中化集团公司	petroleum
Sinopec	Sinopec Corporation	China	中国石油化工股份有限公司	petroleum
Strides Arcolab	Strides Arcolab Ltd.	India	-	pharmaceuticals
Sun Microsystems	Sun Microsystems, Inc.	USA	-	computer
Suntech Power	Suntech Power Holdings Co., Ltd.	China	尚德电力控股有限公司	energy
T-Mobile	Telekom Deutschland GmbH	Germany	-	telecommunications
TCL	TCL Corporation	China	TCL 集团股份有限公司	household appliance
Telecom Italia	Telecom Italia S.p.A.	Italy	-	telecommunications
Telefónica de España	Telefónica S.A.	Spain	-	telecommunications
Texas Instruments	Texas Instruments, Inc.	USA	-	electronics
Thomson	Thomson SA	France	-	household appliance
Thyssen-Krupp	Thyssen-Krupp AG	Germany	-	steel
TPV	TPV Technology Limited	China	冠捷科技有限公司	electronics
Tsingtao Beer	Tsingtao Beer Group	China	青岛啤酒股份有限公司	brewery

name used in thesis	full name	origin	name in Chinese	main products
UTStarcom	UTStarcom Incorporated	China	UT 斯达康	telecommunications
Vantec	Vantec Corporation	Japan	-	logistics
Vodafone	Vodafone Group	UK	-	telecommunications
VW	Volkswagen AG	Germany	-	automotive
Wanxiang	Wanxiang Group	China	万向集团	automotive
Wusteel	Wuhan Iron and Steel (Group) Corporation	China	武汉钢铁（集团）公司	steel
Xinjiang Bayi Steel	Xinjiang Bayi Iron & Steel Co., Ltd.	China	新疆八一钢铁有限公司	steel
Yingli Solar	Yingli Green Energy Holding Co., Ltd.	China	英利绿色能源控股有限公司	new energy
Yisteel	Shanghai Yigang Industry Co., Ltd.	China	上海耀钢实业有限公司	steel
ZTE	ZTE Corporation	China	中兴通讯股份有限公司	telecommunications

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Eidesstattliche Erklärung

Hiermit versichere ich, dass ich die vorliegende Arbeit selbstständig und ohne unzulässige Hilfe Dritter geschrieben habe und keine anderen als die angegebenen Hilfsmittel und Quellen benutzt habe.

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